Arcade Machine Build Documentation v5.0

Revision Date: 2011-02-03

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Table of Contents

Arcade Machine Reloaded Build Documentation

Introduction

These are my notes for my Arcade Machine. I have tried to make them as generic as possible so that others can use it, including using the MAMEWah variables instead of my local file system. My thanks to all at the MAMEWorld Forums for their help over the years. I wanted to give something back to the community that helped me out and, since Minwah has been busy adding features and not doco, I thought I'd jump in and have a go.

In many cases I've chosen the emulator that works best for me. In some cases you may have other technical challenges (slower machine, smaller monitor, less buttons, etc) and so a different emulator may be better for you. If that's the case, then post your working config and I'll try to add it as an alternative.

Windows & MAMEWah Build

All games and game files are installed on F:\

This allows for a smoother transfer between machines should an upgrade be required. Integrating the install with windows and the other contents of c: just complicates migrations. F: is best made a separate physical drive as well – for the same reasons.

MAMEWah Quickstart

What you will need:

- A computer (at least a Pentium)
- A copy of MAMEwah
- A copy of MAMEWah System Files
- A copy of MAME (not MAME32)
- Time

Start

- Download the System Files package to your PC
- Uunzip the package to a temporary directory
- Run the batch file - setup.bat
- Wait until it completes the update.

Install MAMEWah in root dir. e.g.

```
f:\mamewah
```

Create emu sub-dir

Download the MAME package to your PC and install MAME in emu dir

```
f:\mamewah\emu\mame
```

Install all other emulators in their respective directories.

```
f:\mamewah\emu\mess
f:\mamewah\emu\spectrum
f:\mamewah\emu\segagenesis
f:\mamewah\emu\supernes
```

...

All emulator specific files go in these directories - artwork, roms, alternative emulators

Pick a drive and unzip the package. Preferably the root drive, e.g. c:\mamewah or f:\mamewah

You should check that MAME is working by loading a DOS prompt (Start/Run/CMD) changing to your MAME directory (cd \MAME) and testing a game.

```
mame frogger
```

is a pretty good start.

If the game loads (don't worry about sound too much) then your MAME install is set up correctly. If there are problems at this stage, it's MAME not MAMEWah, so go read some MAME doco.

The Mamewah directory looks like this:

```
c:\mamewah\config
c:\mamewah\mamewah.exe
```

```
c:\mamewah\mamewah.ini
c:\mamewah\whatsnew.txt
```

The mamewah.ini file comes configured with simple settings which you should not need to change initially.

The config directory comes with some simple layout files and a mame directory. There is also a mamewah.cfg file that contains all of the controller setups for the front-end itself. This file is pre-configured to be compatible with arcade machine setups. Left, Right, Up, Down to navigate the menu and 1 to select a game and 2 opens the menu options.

The two files in the config\mame directory are mame.ini and mame-0.ini. Mame-0.ini simply configures the basic "All Games" filter. If you make more filters (e.g. vertical shooters) then another file will be created here (e.g. mame-1.ini). For now let's concentrate on getting MAME to run through Mamewah.

Open the mame.ini file and let's talk about the options.

```
emulator_title                                  M.A.M.E.
```

This is the emulator name as it appears in the MAMEWah menu, you can change this to whatever you like.

```
### List Generation Settings ###
rom_path                                        c:\mame\roms
rom_extension                                   zip
```

These two configuration lines tell mamewah to look in the c:\mame\roms directory for files with a .zip extension. If found, mamewah will list them in the All Games window in the MAMEWah GUI (with some exceptions, see list_generation_method below).

```
dat_file
nms_file
```

These two are additional configuration lines. MAME has dat files which provide additional information to MAME such as hiscore and history files. The nms_file line is a carry-over from ArcadeOS (which MAMEWah is based on). By default, MAMEWah simply displays the names of the rom files, nms files allow the user to configure the names of the games as they appear in MAMEWah's GUI. This is not used in MAME though as it has its own naming convention.

```
catver_ini_file                                 c:\mame\catver.ini
```

catver files allow MAME to categorise games into genres, such as vertical shooter, mahjong, etc. MAMEWah can use this data to create filtered lists.

```
list_generation_method                          rom_folder_vs_listxml
list_generation_method                          rom_folder_vs_xml2info
```

This is MAME's naming convention, it matches the names of the roms and gives them a legible title. Many new users have problems with this part which can be very frustrating as it means that no games are displayed in MAMEWah. This method compares MAME's output against the contents of your rom folder and filters any missing roms. There are many options one is to replace this setting with:

```
list_generation_method                          rom_folder
```

Which reads, as filenames, the contents of rom_path (above). Unless you have a .nms file, having manually created alternate names.

Other options are:

```
(rom_folder / dat_file / rom_folder_vs_dat_file / rom_folder_vs_listinfo / verifysets_vs_listinfo /
listxml / rom_folder_vs_listxml / verifysets_vs_listxml)
```

```
### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                                    c:\mame\mame.exe [name]{nodosbox}
post_emulator_app_commandlines
general_app_commandlines
```

This is the command line side of MAMEWah, in other words, this is where the magic happens. If "mame frogger" worked in the initial MAME test, then these settings should be just fine. The "pre_emulator_app_commandlines" allows you to load a music-player or a graphic tsr or anything else you want to run before MAME fires up.

The important one is the "emulator_commandline" which points to the location of the mame executable. [name] refers to the rom title and {nodosbox} asks MAMEWah to 'hide' the command line box as the game is loading. The "post_emulator_app_commandlines", as per the pre_emulator_app_commandlines might be used to close the music player or unload a graphic tsr. The "general_app_commandlines" might be for a program such as CPViewer which displays the game's controls. e.g.

general_app_commandlines c:\cpviewer\cpviewer.exe -r=[name] -c=[cloneof]

```
### Artwork Settings ###
artwork_image_paths                                     c:\mame\snap
movie_preview_path                                      c:\mame\previews
movie_artwork_no                                        1
enable_fuzzy_search                                     0
```

This is where the screenshots come from. In-game screenshots are normally referred to as snaps in emulator-land. Keep your images 'local' to the emulator, rather than putting them in the MAMEWah directory, otherwise it might get a little messy as you add more emulators.

The "movie_preview_path" and "movie_artwork_no" you should leave alone as it can be pretty frustrating getting the right format for MAMEWah's inbuilt player but is something you might like to invest some time when you have the core parts working fully.

And that's about it to get up and running! The rest of the settings rarely change from the default and again deal with enhancements such as screensavers and music players.

Once you have this file configured, go ahead and run the MAMEWah executable.

You'll be initially disappointed to find no games listed but simply press 2 to bring up the menu and select "Games List Options" using the 1 key and then "Generate List", again using the 1 key. Think of 1 and 2 as right and left mouse buttons which might make things a little easier.

You should now see a list of your games. So scroll down and select Frogger from the list using the up and down keys (or your cab's joystick). Press 1 to launch the game. Move the joystick left and right to select OK if prompted and of course use the 5 key to insert credits.

Press Esc to quit back to MAMEWah's menu.

Now go play some games!

Notes

It is important to note that both your MAMEWah and MAME directory can be placed anywhere, even inside each other. However this does decrease the effectiveness of the default configuration files.

For other emulators, try jcrouse's page which has both config files and layouts for each emulator. These are covered in the mamewah-other.txt file.

Arcade Keys

Arcade Keys	Keyboard	Scan code	SDL Code		Arcade Keys	Keyboard	Scan code	SDL Code
Player 1	1	2	49		Player 2	2	3	50
P1 Up	Up	72	273		P2 Up	r	19	114
P1 Down	Down	80	274		P2 Down	f	33	102
P1 Left	Left	75	276		P2 Left	d	32	100
P1 Right	Right	77	275		P2 Right	g	34	103
P1 Btn 1	Ctrl	29	306		P2 Btn 1	a	30	97
P1 Btn 2	Alt	56	308		P2 Btn 2	s	31	115
P1 Btn 3	Space	57	32		P2 Btn 3	q	16	113
P1 Btn 4	L Shift	42	304		P2 Btn 4	w	17	119
P1 Btn 5	z	44	122		P2 Btn 5	i	23	105
P1 Btn 6	x	45	120		P2 Btn 6	k	37	107
Credit 1P	5	6	53					
Credit 2P	6				P1 + P2	Esc	?	??
P1 + P1 Left	Enter	?	??		P1 + P1 Right	Tab	?	??
P1 + P1 Up	~	?	??		P1 + P1 Down	P	?	??

Tuning MAMEWah

MAME Resolutions

When running games in Direct3D mode, changing the resolution is largely pointless since Direct3D will select the best fit for your monitor and vide card anyway. However when running in DirectDraw, the correct resolution becomes critical. If you have a decent sized monitor, e.g. greater than 24”, most games, either vertical or horizontal will fit and be playable. If you're having a problem with some games displaying with vertical hold 'roll', then simply create a matching c:\mame\ini\ [romname].ini and add resolution 640x480 in it. Direct3D will display to a compatible frequency and choose a 'best fit' resolution.

Hi-scores can be enabled by downloading a hiscore.dat file and placing it in the mame directory with mame.exe. Every time you play a game, it will create a hi-score file in the hi directory. It even supports games which never had it. Warning: This feature was removed around MAME 0.121 but MAME can be recompiled or just use an older version.

Using Custom Layouts

There are three main parts to custom layouts. The artwork, layout and ini files.

Artwork

Artwork for MAMEWah's layout files are usually made up of at least one image - the background – and even if this is not supplied MAMEWah will default to the standard MAMEWah background image. However, you can include options and message images as well. MAMEWah requires these files to be in the following naming convention:

main.jpg	the primary background image, should match your layout resolution
message.jpg	the background image for the “Loading [romname]” image displayed after selecting a game
options.jpg	the background image for the options box displayed

Lay Files

The layout files (.lay) contain information generated in MAMEWah Layout Designer. The paths specified seem to be largely irrelevant, MAMEWah will simply search in the relevant layout folder for the default files. Editing these files by hand is fraught with danger as the file format is undocumented, just use the Layout Designer to make changes.

Ini Files

MAMEWah uses the ini files to build its Choose Platform menu, which is alphabetically sorted, so numbering these files in the order you wish the games to appear in the menu is the order of the day. However, you can also create an \mamewah\config\emulator.ini file and place [emuname] in the order you wish them to be displayed. If you have an \mamewah\config\[emuname].ini file in the \mamewah\config\[emuname] directory the name will appear in the menu.

```
### 09supernintendo.ini (mamewah v1.62) ###

### This is the name that appears in the menu and is available to display on a layout. ###

emulator_title                          Super Nintendo
```

Using relative paths in MAMEwah

1. Choose your directory structure

e.g.

```
F:\mamewah162b13\config\01mame\01mame.ini
F:\mamewah162b13\config\01mame\Theme1
F:\mamewah162b13\config\08nintendo
F:\mamewah162b13\config\08nintendo\08nintendo.ini
F:\mamewah162b13\config\08nintendo\Theme1
F:\mamewah162b13\emu\01mame\mame.exe
F:\mamewah162b13\emu\08nintendo\NES.NMS
F:\mamewah162b13\emu\08nintendo\roms
F:\mamewah162b13\emu\08nintendo\snap
F:\mamewah162b13\emu\08nintendo\fceu
F:\mamewah162b13\emu\08nintendo\fceu\fceu.exe
```

and don't forget CPV2!

```
F:\mamewah162b13\emu\cpv2\cpv2.exe
```

This allows for multiple themes, multiple emulators per format and separate rom, snap, flyers, etc per format.
The number in front of the emulator directory allows you to specify where it appears in MAMEWah's alphabetical list which is useful, it also allows you to use the mamewah variable [emuname] in your config files.

2. Set your emulator_root_path to F:\mamewah162b13 in your f:\mamewah162b13\mamewah.ini

3. Then concentrate on your individual emulator.ini config files

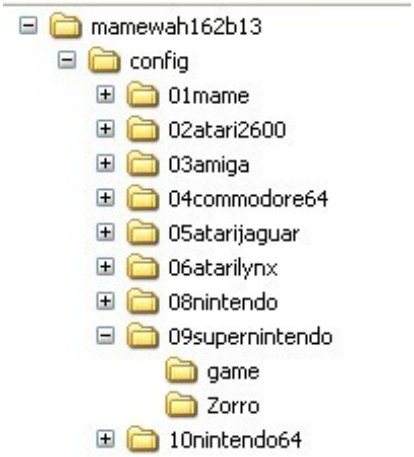
```
### 08nintendo.ini (mamewah v1.62b13) ###
emulator_title                          Nintendo NES


### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           nes
dat_file
nms_file                                [emurootpath]\[emuname]\NES.nms
catver_ini_file
list_generation_method                  rom_folder


### Execution Settings ###
pre_emulator_app_commandlines           [emurootpath]\cpv2\cpv2.exe -p=[emuname]
emulator_commandline                    [emurootpath]\[emuname]\fceu\fceu.exe "[rompath]\[name].
[romext]"{nodosbox}{safelaunch}
```

```
post_emulator_app_commandlines
general_app_commandlines                [emurootpath]\cpv2\cpv2.exe -p=[emuname]

### Artwork Settings ###
artwork_image_paths                     [emurootpath]\[emuname]\snap;[emurootpath]\[emuname]\titles;
[emurootpath]\[emuname]\flyers
movie_preview_path                      [emurootpath]\[emuname]\previews
movie_artwork_no                        1
enable_fuzzy_search                     0
history_dat_file                        auto
history_dat_artwork_no                  2

### Screen-Saver Settings ###
enable_music_in_screensaver             1
select_random_game                      0
saver_type                              gamelist_slideshow
movie_path                              [emurootpath]\[emuname]\previews
movie_fullscreen                        1
quit_delay                              0
saver_commandline

### Additional Settings ###
music_path
lcd_display_file_path
description_display                     [description]{scroll}

### Settings used by MAMEWAH ###
current_list                            0
```

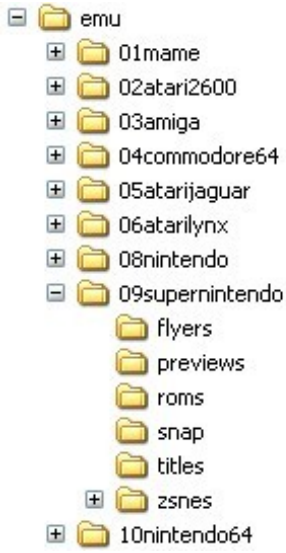
If you move the entire mamewah directory at a time, all you have to do is change the path specified in the mamewah.ini file and everything should work fine.

Here is a directory snapshot of a MAMEWah setup. A carefully set up directory structure can make MAMEWah a relatively easy system to maintain.

f:\mamewah162b13\config\09supernintendo



f:\mamewah162b13\emu\09supernintendo



There are three primary types of files you need to edit to configure MAMEWah.

- mamewah.ini
- mamewah.cfg
- emulator specific configuration files e.g. 09supernintendo.ini

mamewah.ini

Contains your global settings such as the emulator_root_path which needs to be manually set to the parent directory. In my case this is:
`f:\mamewah162b13\emu`

From now on if you use the variable "emurootpath", MAMEWah will read it as "f:\mamewah162b13\emu"
Almost everything else in the mamewah.ini can be configured from inside the program.

mamewah.cfg

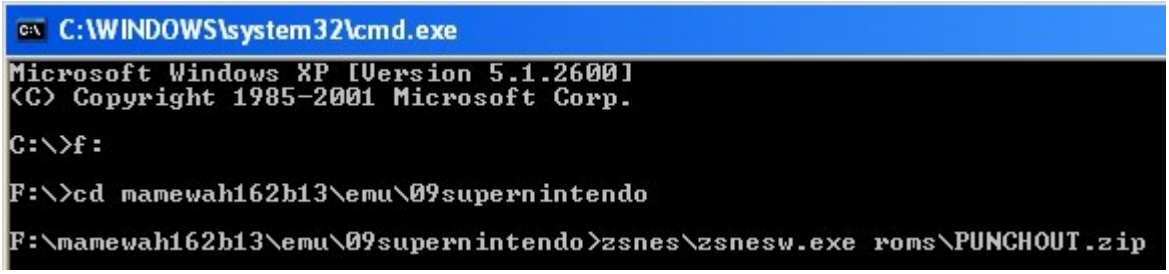
This file contains all of the key settings for MAMEWah and is where you can set some of the buttons to easily move around the front-end such as Next Emulator and Random Game.

[emuname].ini

This is where all the magic takes place. When you tell MAMEWah to run a particular game on a particular emulator, you are essentially just passing it a command line.
For example (and assuming you have your directory structure like mine), to run Super Punch Out on ZSNES you would type the command line:

```
f:\mamewah162b13\emu\09supernintendo\zsnes\zsnesw.exe
"f:\mamewah162b13\emu\09supernintendo\roms\PUNCHOUT.zip"
```

Of course, most people would change to the target directory first, like this:



Using variable paths the emulator config file (09supernintendo.ini) represents this command line like this:
`[emurootpath]\[emuname]\zsnes\zsnesw.exe "[rompath]\[name].[romext]"`

Where `[emurootpath] = f:\mamewah162b13\emu` (as set by mamewah.ini)

`[emuname] = 09supernintendo` (name of the config directory for the emulator chosen)

This variable is very useful and is the reason why the emulator directories are named exactly the same as the config directories.

`[rompath] = [emurootpath]\[emuname]\roms` (as set in the emulator config file)

If you extrapolate this pathname out, you get:
`[rompath] = f:\mamewah162b13\emu\09supernintendo\roms`

`[name] = PUNCHOUT` (or the game title selected via the MAMEWah selection screen)

`[romext] = zip` (as set in the emulator config file)

Now all that's required is a bit of discipline. Images always go in the emulator directory as snap, titles and flyers. Roms are always in the parent emulator directory rather than under the emulator itself, so that multiple emulators for the same format can easily access the same set of roms. Finally, the actual directory for the emulator can be anything you like since it is manually set in the emulator_commandline variable.

To create a new emulator configuration file:

- create a new config directory for the emulator e.g. 26colecovision.
- copy the 09supernintendo.ini file to the new directory and rename it 26colecovision.ini
- Change the following values to match the vagaries of the new emulator:
    - emulator_title
    - rom_extension
    - nms_file (optional)
    - emulator_commandline

Using relative paths and MAMEWah's standard variables that's all you need to modify. See example below:

```
### 09supernintendo.ini (mamewah v1.62) ###

emulator_title                          Nintendo SNES

### List Generation Settings ###
rom_path                                emurootpath]\[emuname]\roms
rom_extension                           zip
dat_file
nms_file                                [emurootpath]\[emuname]\snes.nms
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                    [emurootpath]\[emuname]\zsnes\zsnesw.exe "[rompath]\[name].
[romext]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines

### Artwork Settings ###
artwork_image_paths                     [emurootpath]\[emuname]\snap;[emurootpath]\[emuname]\titles;
[emurootpath]\[emuname]\flyers
movie_preview_path                      [emurootpath]\[emuname]\previews
movie_artwork_no                        1
enable_fuzzy_search                     0
history_dat_file                        auto
history_dat_artwork_no                  2

### Screen-Saver Settings ###
enable_music_in_screensaver             1
select_random_game                      0
saver_type                              movie
movie_path                              [emurootpath]\[emuname]\previews
movie_fullscreen                        1
quit_delay                              0
saver_commandline

### Additional Settings ###
music_path
lcd_display_file_path
description_display                     [description]{scroll}

### Settings used by MAMEWAH ###
current_list                            0
```

Custom Lists

Custom lists are very easy to get up and running. By default, MAMEWah creates an [emuname]-0.ini file which lists all games discovered by the list_generation_method specified in the [emuname].ini

```
### 01mame-0.ini (mamewah v1.62) ###

list_title                                          All Games

### Games List Settings ###
cycle_list                                          1

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline
post_emulator_app_commandlines

### Settings used by MAMEWAH ###
current_game                                        1966
```

Copy this file and rename it [emuname]-1.ini. Change the list title to whatever you want the list to be called in MAMEWah's Game List Options. When you restart MAMEWah you'll have a blank list that you can copy games to. Repeat as many times as you like to create the lists you want. These lists can also use MAMEWah's Generate Filtered List option which will filter based on a range of caetgories as specified in the catver_ini_file option in [emuname].ini. Be careful when refreshing a 'hand-made' custom list though, it will overwrite your entries with the filtered list entries.

MAMEWah creates a .lst and .ftr file in the mamewah\files directory. Make a backup of the .lst file when you are done. These entries can be copied into a new file in the event of data loss or simply as the basis for another list.

Additionally there are two other features: Most Played and Longest Played which will auto-generate lists for you. Simply using the list_types longest_played and most_played will do the work for you. These options will work in all emulators but I have used the mame files as examples.

Create a new .ini file in mamewah\config\[emuname]

```
### 01mame-5.ini (mamewah v1.62) ###

list_title                                          Longest Played

### Games List Settings ###
cycle_list                                          1
list_type                                           longest_played
display_clone_info                                  0
max_favorites                                       0



### 01mame-4.ini (mamewah v1.62) ###

list_title                                          Most Played

### Games List Settings ###
cycle_list                                          1
list_type                                           most_played
display_clone_info                                  0
max_favorites                                       0
```

NMS Files

Nms files are a carry-over from ArcadeOS, which MAMEWah is based on. These files were especially useful when running under DOS because of the restrictions with filename length but less so under other OS'. These are simple files in the following format:

```
[Display Title]|[name]
```

So, if you have a rom called POPU930.zip, you would add the following line to your nms file:

```
Populous|POPU930
```

Which would display the game as Populous in the Game List.

Emulator Summary

MAMEWah v1.62 beta 13

System	Emulator & Version	Date	Homepage	Status
3DO	Freedo 1.6 – 1.9		http://www.freedo.org/	Not working fully, very sluggish emulation.
Arcade	MAME 0.99	6/8/05	http://mamedev.org/	Solid version before MAME Team went pure and removed gameplay features
Arcade	MAME 0.129	04/01/09	http://mamedev.org/	Solid MAME version, good for Virtua Racing & Killer Instinct, older versions are faster and smaller
Arcade	MAME 0.131	23/04/09	http://mamedev.org/	Full-featured MAME, good for recent emulation improvements (e.g. Phoenix)
Arcade	Zinc 1.1	25/1/05	http://www.emuhype.com/index.phtml?s=zinc&ss=index	Working but with some sound glitches (Tekken 3) and a little sluggish. Games list cleaned up from initial complete games list. Moved some of the best games to MAME.
Arcade	CPS3 1.0A	//07	http://nebula.emulatronia.com	Works perfectly, closemul to quit
Arcade	Daphne		http://www.daphne-emu.com/	Working perfectly
Atari 2600	MESS v0.131	3/5/09	http://www.mess.org/	Working, some issues with button configs
Atari 5200	MESS v0.131	3/5/09	http://www.mess.org/	Working, some issues with button configs
Atari 7800	MESS v0.131	3/5/09	http://www.mess.org/	Working, some issues with button configs
Atari Jaguar	Virtual Jaguar v1.0.7 GCC/SDL	07/10/04	http://icculus.org/virtualjaguar/	Works but very sluggish, especially with sound enabled. Very much a WIP
Atari Jaguar	Project Tempest v0.95	12/01/04	http://pt.emuunlim.com/	WIP
Atari Lynx	Mednafen 0.8.4	08/09/07	http://mednafen.sourceforge.net/	Works perfectly.
Colecovision	MESS v0.131	3/5/09	http://www.mess.org/	Working
Commodore 64	WinVICE 2.0	18/7/08	http://www.viceteam.org/	Works with closemul, moved Quit to 1+5. Perfect.
Commodore Amiga	WinUAE 2.2.0	26/08/10	http://www.winuae.net/	Fully working, hard-disks, multi-floppy games, two joysticks, snapshots, WHDLoad
Gameboy (B&W & Color)	VisualBoyAdvance 1.7.2	25/05/04	http://vba.ngemu.com/	Works perfectly.
Gameboy Advance	VisualBoyAdvance 1.7.2	25/05/04	http://vba.ngemu.com/	Works perfectly.
Intellivision	MESS v0.131	3/5/09	http://www.mess.org/	Working, some button issues
NEO-GEO Pocket	NeoPop-Win32	10/09/02	http://neopop.emuxhaven.net/	Working
Nintendo 64	Project64 v1.5SP1	11/06/03	http://www.pj64-emu.com/	Hacked version (Esc to quit) runs well with latest OpenGL display plugin
Nintendo NES	FCEUX v2.10	30/03/09	http://fceux.com	Works perfectly.
Nintendo Super NES	Zsnes v1.51	24/01/07	Http://www.zsnes.com	Work perfectly including FX games.
PC Games	GL Tron			Works, uses enter but 4 players are configured.
PC Games	Pro Pinball: Timeshock & Fantastic Journey			Uses enter to start and quit but otherwise works perfectly
PC Games	Crazy Taxi 3			PC Version, works perfectly, uses Enter a lot
PC Games	Doom 1 & 2			Uses Doom Legacy for split-screen and ease of loading. See details in doco below
PC Games	Xenon 2000			Native windows, works brilliantly. Official Bitmap update.
PC Games	Need for Speed 1, Screamer 2 & Rally			Use DOSBox, require key re-mapping. See details in doco below
Sega 32X, Game Gear, Genesis, Master System	Fusion 3.51	05/01/06	http://www.eidolons-inn.net/tiki-index.php?page=Kega	Works perfectly.
Sega Saturn	SSF, Yabause, Satourne, Cassini		Various	Not working - WIP
Sinclair Spectrum	ZXSpin 0.666	20/03/10	http://www.emuwiki.com/index.php?title=History_of_ZX_Spin	Needs some autohotkey magic for switching to Kempston joystick mode and quitting but emulation works very well.
Sony Playstation	Epsxe 1.7.0	24/05/08	http://www.epsxe.com/	Works well. Games are full-speed.
TurboGrafx 16	Mednafen 0.8.4	08/09/07	http://mednafen.sourceforge.net/	Works perfectly
Vectrex	MESS v0.98	10/7/09	http://www.mess.org/	Working. Using older version because of vector issues.
Ridge / Rage Racer	Vivanonno	20/08/02	http://vivanonno.vg-network.com	Needs some autohotkey mouse magic to load the rom and make it full-screen. Won't load the command-line rom. See details in doco below.
Wonderswan	Oswan 1.7.3	25/05/07	http://www.emulator-zone.com/doc.php/wonderswan/oswan.html	Working, though rotated games are difficult to control

Arcade – Multiple Emulators

MAME 0.99 – 8/8/05	***CPS3 1.0a - 15/7/07***	***Vivanonno 22.0.3***
MAME 0.129b_i686 - 4/1/09	***Zinc 1.1 - 25/1/05***	

MAME 0.99 – 8/8/05

It was around the time of this version's release that the mission statement of the MAME Dev team began to change. Striving for emulation rather than playability, some features were removed and many added, resulting in a more accurate but much slower emulation.

This version performs well on both raster and vector games and is very compatible with my romset :-)

This version is missing support for Capcom's CPS3 games (esp. SF III) and is poor at the CHD (e.g. Killer Instinct) and System 22 games (e.g. Tekken). Virtua Racing & Virtua Fighter are supported but very glitchy and unplayable.

For maximum compatability with my setup I run Direct3D as my rendering engine which handles all the stretching and scaling to fit my monitor. It is a performance hit though, so for less well-endowed PCs, switch to ddraw. You'll find rendering options in your mame.ini

```
ddraw                                                   0
direct3d                                                1
```

In later version of MAME, you'll find it in the:

```
# WINDOWS VIDEO OPTIONS
#
video                                                   d3d
# ddraw, ddi, d3d, none
```

```
### 01mame.ini (mamewah v1.62) ###

emulator_title                          M.A.M.E.

### List Generation Settings ###
rom_path                                                [emurootpath]\[emuname]\roms
rom_extension                                           zip
dat_file                                                [emurootpath]\[emuname]\mame.dat
nms_file
catver_ini_file                                         [emurootpath]\[emuname]\catver.ini
list_generation_method                                  rom_folder_vs_dat_file

### Execution Settings ###
pre_emulator_app_commandlines                           [emurootpath]\cpv2\cpv2.exe -r=[name]
emulator_commandline                                    [emurootpath]\[emuname]\mame.exe
[name]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines                                [emurootpath]\cpv2\cpv2.exe
-b=[emurootpath]\cpv2\images\mamewah.jpg
```

I still use the rom_folder_vs_dat_file option because it limits my list to the roms I have which is a heavily trimmed down list.

MAME 0.129b_i686 – 4/1/09

Currently running Virtua Racing, Virtua Fighter.

I use the optimised version – i686 simply because I am running higher-end games. Virtua Racing and Virtua Fighter are technically challenging games to emulate and thus I give them the best advantage possible.

They are still selected from the main MAME game listing though, and you can do this by a MAMEWah trick:

In the config\emulator directory there should be a game directory. You can drop individual ini files in there (same name as game rom) and MAMEWah will run that launch ini instead of the main one for the emulator.

The only difference is with the executable line:

```
### 01mame.ini (mamewah v1.62) ###

### Execution Settings ###
emulator_commandline                                    [emurootpath]\[emuname]\mame.exe
[name]"{nodosbox}{safelaunch}
```

vs

```
### vr.ini (mamewah v1.62) ###

### Execution Settings ###
emulator_commandline                        [emurootpath]\[emuname]\mame0129b_i686\mamepp.exe
[name]"{nodosbox}{safelaunch}
```

Like MAME's ini files, you only need the command lines that are different in the game-specific ini.

MAME 0.106b_i686 – 4/1/09

This is used explicitly for Killer Instinct 1. It won't work under 0.99 or 0.129. Killer Instinct 2 works fine under MAME 0.99, though it is a little slow. The Killer Instinct games are CHD games which can be tricky to get working if you're not used to them. My advice is to place the rom in the mame\roms folder and the CHD file in a corresponding sub-folder (e.g. kinst & kinst2), MAME should take care of the rest. My implementation has

```
### kinst.ini (mamewah v1.62) ###

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                        [emurootpath]\[emuname]\mame0129b_i686\mamepp_106.exe
-inipath ini  [name]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
```

I have a simple kinst.ini in the mame\ini directory with just one line:

```
resolution 640x480
```

It's a placeholder to stop mamepp_106.exe from reading the mame.ini file (mame\mame0129b_i686\mame.ini) for the more recent version of mame and generating errors. It still runs the game without this ini but outputs a lot of errors to the dosbox.

CPS3 1.0a – 15/7/07

This emulator is used exclusively for running Street Fighter III: Third Strike. As soon as I can have the game appear in MAME's game listing (via dat file), I will create ini files in the mame directory (see above) and point SFIII to the CPS3 emulator on the command line. Until then, I have to run it as a separate emulator with its own game list and directory setup.

```
02CPS3\
                    CFG\
                    CHD\
                    NVDATA\
                    Plugins\
                    ROMS\
```

To play SFIII: 3rd Strike you'll need two files:

sfiii3.zip – zipped in the ROMS dir – the chips as dumped roms, this is the standard MAME file

33s000.chd – unzipped in the CHD dir. This is the CD version of the arcade machine.

I found I could not get one to work without the other but I will continue to hone.

```
### 02CPS3.ini (mamewah v1.62) ###

emulator_title                          Capcom System 3

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           zip
dat_file
nms_file                                [emurootpath]\[emuname]\CPS.nms
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                    [emurootpath]\[emuname]\closemul.exe emulator.exe [name]
{nodosbox}{nosafelaunch}
post_emulator_app_commandlines
general_app_commandlines
```

Zinc 1.1 – 21/1/05

Zinc is a strange emulator, instead of reading the rom, it holds a text file (zinc.dat) with the details (like mame.dat) and each game is executed as an assigned number.

e.g. The entry for Tekken 3:

```
game (
                name 61
                description "Tekken 3 (TET1/VER.E1)"
                year 1996
                manufacturer "Namco"
                rom ( name tet1vere.2e size 2097152 crc 8b01113b sha1
45fdfd58293641ed16bc59c633a85a9cf64ccbaf region user1 )
                rom ( name tet1vere.2j size 2097152 crc df4c96fb sha1
2e223045bf5b80ccf615106e869760c5b7aa8d44 region user1 )
                rom ( name tet1rm0l.6 size 4194304 crc 2886bb32 sha1
08ad9da2df25ad8c933a812ac238c81135072929 region user2 )
                rom ( name tet1rm0u.9 size 4194304 crc c5705b92 sha1
20df20c8d18eb4712d565a3df9a8d9270dee6aaa region user2 )
                rom ( name tet1rm1l.7 size 4194304 crc 0397d283 sha1
ebafcd14cdb2601214129a84fc6830846f5cd274 region user2 )
                rom ( name tet1rm1u.10 size 4194304 crc 502ba5cd sha1
19c1282245c6dbfc945c0bd0f3918968c3e5c3ed region user2 )
                rom ( name tet1rm2l.8 size 4194304 crc e03b1c24 sha1
8579b95a8fd06b7d2893ff88b228fd794162dff1 region user2 )
                rom ( name tet1rm2u.11 size 4194304 crc 75eb2ab3 sha1
dee43884e542391903f6aaae2c166e7921a86fb4 region user2 )
                rom ( name tet1fl3l.12 size 2097152 crc 45513073 sha1
8a36f58ee2d292b50e00c6bf275f9def358032d8 region user2 )
                rom ( name tet1fl3u.13 size 2097152 crc 1917d993 sha1
cabc44514a3e62a18a7f8f883603241447d6948b region user2 )
```

```
                rom ( name tet1vere.11s size 524288 crc c92b98d1 sha1
8ae6fba8c5b6b9a2ab9541eac8553b282f35750d region cpu2 )
                rom ( name tet1wav0.5 size 4194304 crc 77ba7975 sha1
fe9434dcf0fb232c85efaaae1b4b13d36099620a region sound1 )
                rom ( name tet1wav1.4 size 4194304 crc ffeba79f sha1
941412bbe9d0305d9a23c224c1bb774c4321f6df region sound1 )
)
```

So, the MAMEWah config reads:

```
### 11zinc.ini (mamewah v1.62) ###

emulator_title                          Zinc

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           zip
dat_file                                [emurootpath]\[emuname]\zinc.dat
nms_file                                [emurootpath]\[emuname]\[emuexename].nms
catver_ini_file                         [emurootpath]\[emuname]\catver.ini
list_generation_method                  dat_file

### Execution Settings ###
pre_emulator_app_commandlines           [emurootpath]\cpv2\cpv2.exe -p=[emuname];
emulator_commandline                    [emurootpath]\[emuname]\zinc.exe [name] --use-controller-
cfg-file=[emurootpath]\[emuname]\ini\[name].ini{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines
```

As you can see, the command line does not point zinc.exe at the roms directory, but at the relevant dat number and then loads the settings from the #.ini in the zinc\ini directory.

e.g.

```
emulator_commandline                    [emurootpath]\[emuname]\zinc.exe 61 –use-controller-cfg-
file=[emurootpath]\[emuname]\ini\61.ini
```

However, many of these games are playable in MAME. They don't play as well, but they are listed. To run them from the MAME schema requires an ini substitution. Simply create an [romname].ini file in the mamewah\config\game directory. Files in this directory are read after mame.ini and the settings are overlaid. Any mame.ini setting can be over-ridden on a per game basis.

e.g.

```
### tekken3.ini (mamewah v1.62) ###

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                    [emurootpath]\11zinc\zinc.exe 61 --use-controller-cfg-
file=[emurootpath]\11zinc\ini\61.ini{nodosbox}{safelaunch}
post_emulator_app_commandlines
```

I did this for: Ray Storm, Soul Edge, Tekken, Tekken 2, Tekken 3, Xevious 3D

System 22 (Ridge Racer 2 / Rage Racer) – Vivanonno 22.0.3

Now this is more of a proof-of-concept. Vivanonno is a System 22 emulator that only provides support for two games: Ridge Racer 2 & Rage Racer.

```
### 38vivanonno.ini (mamewah v1.62) ###

emulator_title                          Rave Racer & Ridge Racer - WIP

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]
rom_extension                           viv
dat_file
nms_file                                [emurootpath]\[emuname]\viva.nms
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                    [emurootpath]\[emuname]\vivanonno.exe "[rompath]\[name].
[romext]" {nodosbox}{nosafelaunch}
post_emulator_app_commandlines
general_app_commandlines
```

Vivanonno is GUI dependent, you can't pass a rom name on the command line. Because of this, you have use something like autohotkey to send a series of mouse clicks to load the game and then select full-screen. This also means that both games need an individual autohotkey script. A MAMEWah limitation is that it will not accept variable names in the executable. e.g. [name].exe is not allowed. Nor will it allow you to specify a command-line without a rom variable. To resolve this I've put a few 'hacks' into this config file.

1. `rom_extension = viv`

This is completely arbitary, call it whatever you like. I have two text files in the vivanonno directory; rave.viv and rr2.viv. These are placeholders only, used in the nms file and to allow MAMEWah to call game-specific ini files.

2. `nms_file = viva.nms`

   ```
   Rave Racer|RAVE
   Ridge Racer 2|RR2
   ```

Purely to get the game names to display neatly, without relying on the romnames, which are multiple versions of the same couple of games. I could just trim the roms but I'm not sure about dependencies and I can't be bothered to work it out when this works so well. See the NMS Files section for details on how nms files work.

3. `emulator_commandline = [emurootpath]\[emuname]\vivanonno.exe "[rompath]\[name].[romext]" {nodosbox}{nosafelaunch}`

This line is over-ridden by the game specific ini files, which let me call specific, compiled, autohotkey exes to run each game.

```
### rave.ini (mamewah v1.62) ###

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                    [emurootpath]\[emuname]\Rave_Racer.exe "[rompath]\[name].
[romext]" {nodosbox}{nosafelaunch}
post_emulator_app_commandlines
```

```
### ridge_racer_2.ini (mamewah v1.62) ###

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                    [emurootpath]\[emuname]\Ridge_Racer_2.exe "[rompath]\[name].
[romext]" {nodosbox}{nosafelaunch}
post_emulator_app_commandlines
```

The executables themselves are simply compiled ahk files, that launch vivanonno, load the relevant rom and make it full-screen. The details of the ahk file are below.

As mentioned above, MAMEWah will not run an executable with no rom variable. In vivanonno's case I use the ahk file to launch vivanonno and load the rom, so a rom variable is not needed. In the interests of launching though, I simply pass the viv file as the argument. The exe ignores the trailing rom part of the command line and executes the compiled script.

Rave_Racer.ahk

```
Run, F:\mamewah162b13\emu\38vivanonno\vivanonno.exe
WinWait, viva nonno,
IfWinNotActive, viva nonno, , WinActivate, viva nonno,
WinWaitActive, viva nonno,
MouseClick, left,  28,  33
Sleep, 100
MouseClick, left,  28,  50
Sleep, 100
WinWait, Select System,
IfWinNotActive, Select System, , WinActivate, Select System,
WinWaitActive, Select System,
MouseClick, left,  94,  127
Sleep, 100
MouseClick, left,  303,  50
Sleep, 100
WinWait, viva nonno - system resetted,
IfWinNotActive, viva nonno - system resetted, , WinActivate, viva nonno - system resetted,
WinWaitActive, viva nonno - system resetted,
MouseClick, left,  72,  25
Sleep, 100
MouseClick, left,  88,  153
Sleep, 100
ctrl::c
alt::x
ESC::
    ExitAPP
return
```

Adding Other Games to the MAME List – Warning - WIP

As mentioned above, if the games you want to add already appear in the MAME list, but perhaps work better with another emulator, then you can simply add a specific config/game/[name].ini and run the game that way. For games that do not appear in the list, you'll have to do a little more work. Firstly you'll have to generate your list using:

```
list_generation_method                    rom_folder_vs_dat_file
```

So that new zip files dropped in the roms folder with corresponding entries in the dat file makes them appear in the listing.

There are six steps involved:

1. Add [name].zip to mame\roms folder. A zip with dummy.txt file is good enough. Make sure it doesn't conflict with existing romname.

2. Add [name] entry into mame.dat (get yourself a decent text editor like notepad++)

Minimum Info:

```
game (
            name cobra
            sourcefile cobra.c
            description "Cobra Command - Daphne"
            year 1984
            manufacturer "Data East"
            history "\nCobra Command (c) 1984 Data East. \n"
            rom ( name 82s126.3m size 256 crc 77245b66 sha1 0c4d0bee858b97632411c440bea6948a74759746
region sound1 offs 100 )
            chip ( type cpu name "Z80" clock 3072000 )
            chip ( type audio name "Laserdisc" clock 96000 )
            video ( screen raster orientation vertical x 224 y 288 aspectx 3 aspecty 4 freq 60.606060 )
            sound ( channels 1 )
            input ( players 2 control joy4way buttons 1 coins 2 )
            dipswitch ( name "Fake Data" entry "Disabled" default "Disabled" entry "Enabled Always"
entry "Enabled with Button" )
            driver ( status good emulation good color good sound good graphic good palettesize 32 )
)
```

3. Add config\game\[name].ini with executable path e.g.

```
### cobra.ini (mamewah v1.62) ###

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                      [emurootpath]\22daphne\daphne.exe [name] vldp -framefile
[emurootpath]\22daphne\vldp_dl\[name]\[name].txt -fullscreen -fastboot{nodosbox}{safelaunch}
post_emulator_app_commandlines
```

Remember to specify non-relative paths for the entire command line if using relative paths in ini files.

5. Refresh All Games list and test the game

6. Copy artwork files over, since they will be read from the MAME directory.

Vector Games

If you want to run vector games on later version of MAME but are disappointed with the results. There are a few things to try. Firstly, remember that MAME runs ini files in the following order: mame.ini, then vector.ini if a vector game, then [sourcefile].ini, then [parent].ini then [game].ini, and finally the command-line options, each overriding the prior settings. Each of the ini files can be blank, have a few options, or replicate the options in mame.ini. Best practice is to keep the specific ini files as small as possible; only add options that are different to mame.ini or options that mame.ini shouldn't change. This way, if you want to make a global change, you only have to edit mame.ini (assuming the option you're changing isn't set in any of the specific ini files).

e.g. if you have mame.ini, vector.ini, and asteroid.ini, and all are 'complete' ini files with all the options, mame will act as if only the asteroid.ini file existed for asteroid, and as if only vector.ini existed for other vector games.

Different monitors and setups will produce different results, but the principles remain the same.

There are vector-specific settings in the mame.ini, these are your first stop.

```
# CORE VECTOR OPTIONS
#
antialias                               1
beam                                    1.6
flicker                                 0
```

There are also the main display options but changing these will change them for all games, so copy these to a specific ini file and save it as c:\mame\[game].ini or c:\mame\vector.ini

```
# CORE SCREEN OPTIONS
#
brightness                              1.0
contrast                                1.0
gamma                                   1.0
pause_brightness                        0.65

and change them to:

brightness                              1.0
contrast                                2.0
gamma                                   3.0
```

Horizontal Scrolling Artefacts or 'Tearing'

In some games such as Shinobi or Rolling Thunder, you may see a rolling line also known as 'tearing' where MAME renders the game in a non-native refresh rate, usually 60hz. There are a bunch of settings you can try to resolve this (look for “tearing” threads on BYOAC forums) but waitvsync seems to do the trick. Simply cut and past the below config into the relevant MAME ini file e.g. c:\mame\ini\shinobi.ini and it should fix the problem. It is a little more CPU heavy and can result in some sound stuttering but only if your PC is already borderline under-specced anyway.

```
### Windows video options ###
autoframeskip           1
frameskip               0
waitvsync               1
triplebuffer            0
window                  0
ddraw                   1
direct3d                1
hwstretch               0
# screen                <NULL> (not set)
cleanstretch            auto
resolution              auto
refresh                 0
scanlines               0
switchres               1
switchbpp               1
maximize                1
keepaspect              1
matchrefresh            1
syncrefresh             1
throttle                1
full_screen_brightness   0.000000
frames_to_run           0
effect                  none
screen_aspect           4:3
```

Nintendo Entertainment System – FCEUX 2.1.0

Switched again to FCEUX and had some wins. Command line is standard and, though it won't work with closemul, the Exit key is mappable to Esc. Get rid of the save state numbered keys (1,2,5,6), so you don't have ugly text popping up every time you press start and you're sorted!

These can all be configured through the GUI.

```
### 08nintendo.ini (mamewah v1.62) ###

emulator_title                                          Nintendo NES

### List Generation Settings ###
rom_path                                                [emurootpath]\[emuname]\roms
rom_extension                                           nes
dat_file
nms_file                                                [emurootpath]\[emuname]\NES.nms
catver_ini_file
list_generation_method                                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                                    [emurootpath]\[emuname]\fceux\fceux.exe
[rompath]\[name].[romext]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines
```

Commodore Amiga – WinUAE 2.2.0

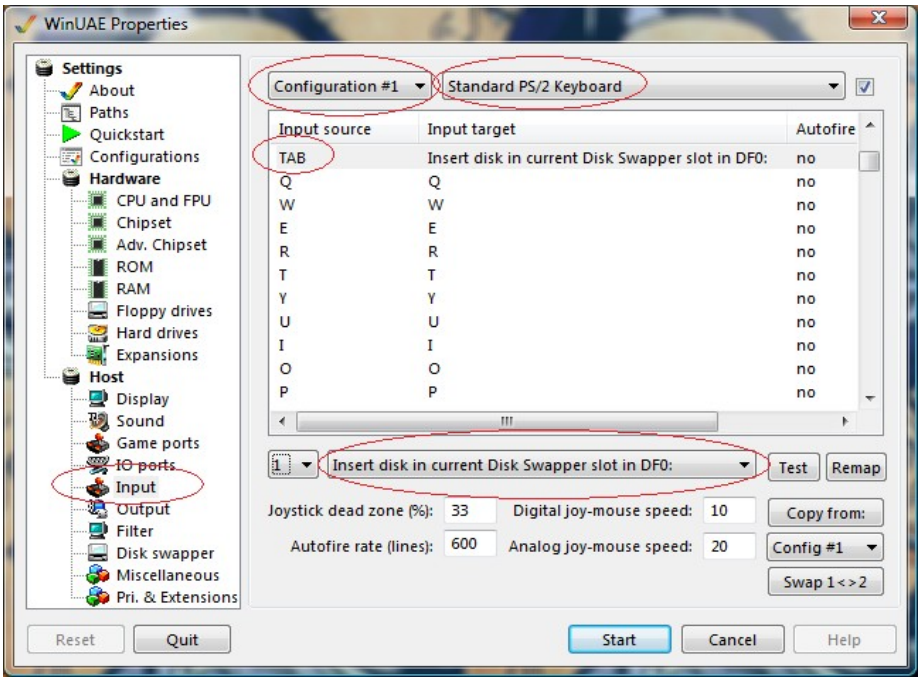
Though older versions of WinUAE work fine for most older Amiga games (especially Amiga 500 games), there have been some great improvements in emulation, user interface and options in the more recent versions such as WinUAE 2.2.0.

- Support for multiple keyboard layouts that, although none of them are terribly useful to MAME cabinet owners, can be remapped from within the program.

- Configurable keys to allow disk image swapping during the game. (I'm pretty sure this has been in there for a while but I only found it recently). Disk-swapping after loading from a snapshot was fixed at some point too.

- General improvements in emulation.

Amiga Games In a Cabinet – Setup Options:



1. Use Amiga floppy disk images, mapping the Disk Swapper function to a key and changing floppy disks where necessary.

Disk snapshots can be used to speed up the loading process, though WinUAE allows for an 800% increase on floppy drive speed and it's good to see the familiar loads. However, to get past non-standard key-presses used by Cracktros (as well as really ugly Cracktros), snapshots are an excellent method.

Map the Disk Swapper function to something semi-arcane on the control panel (like Shift + Joy1 Left = Tab) and you can swap out the current disk with a pre-set disk image.

The majority of Amiga games did not support an external drive, so swapping disks in and out of DF0: is going to be essential.

2. Use a program like WHDLoad that uses floppy disk images 'converted' to run from a virtual Amiga hard drive.

Step 1: Set up an Amiga Hard Drive

There are two types of hard-drive emulated in WinUAE. A windows directory that is mapped to a hard-drive or creating a hard-drive image and formatting under Workbench. Emulating a hard-drive under WinUAE is tricky but does deliver the best overall results in terms of performance. I've had no success with getting the windows directory method to work as a bootable hard-drive but with a copy of Workbench in the drive, it works well-enough. This method also allows you to drag and drop from your windows environment.

First create a directory on your Windows drive, mine is:

```
f:\mamewah162b13\emu\03amiga\harddisk
```

but you could have it inside your WinUAE dir like so:

```
f:\mamewah162b13\emu\03amiga\WinUAE220\harddisk
```

I use multiple versions of WinUAE so I keep mine independent of WinUAE.

Then create the Amiga drive in WinUAE. Select Hardware - Hard drives and Add Directory or Archive

```
Device name: DH0
Volume label: AMI-HD
Path: f:\mamewah162b13\emu\03amiga\WinUAE220\harddisk
```

or Select Directory and browse to it.

Ensure Read/Write and Bootable are selected.

Then boot into Workbench. I want to emulate the Amiga 1200 so I'll need the right BIOS (KS ROM v3.1 (A1200) rev 40.68 (512k) [391773-01/391774-01]) and the right Workbench floppy (Workbench310.adf).

Create an s directory on your hard-drive and then copy this modified startup-sequence to it:

```
; Startup sequence for Hard Disk users...checks for hard disk, then
; transfers control if it is present. (The script assumes DH0:)
; TO USE: copy your normal startup-sequence files (Startup-Sequence,
; and StartupII to the S: directory of your hard disk.
; Then rename your normal Startup-Sequence file
; as Startup-Sequence.f in the S: directory of the floppy, just in case.
; Now replace the Startup-Sequence file on the floppy with this file.
setpatch
SYS:System/FastMemFirst
binddrivers
assign >NIL: DH0: exists
IF NOT WARN
; hard disk is present
assign sys: dh0:
assign c: SYS:c
assign L: SYS:l
assign FONTS: SYS:fonts
assign S: SYS:s
assign DEVS: SYS:devs
assign LIBS: SYS:libs
makedir ram:tr
assign t: ram:tr
execute s:Startup-Sequence
ELSE
; no hard disk
execute s:Startup-Sequence.f
ENDIF
```

To achieve a bootable hard disk, use a hardfile by following the instructions at EasyEmu. You can then boot up both and drag the files between them for a more seamless experience.

Step 2: Install WHDLoad & Add Games

After it's installed, simply find yourself some compatible games, KGWHD is a good repository, unzip them and drag and drop the folders and the .info file to your HD directory. Open the folder in your Amiga and double-click the icon. Happy gaming! The advantage of these packs is that some games have been modified not only to run from a hard-drive but also the gameplay. For example, Stunt Car Racer has an alternative version called Stunt Car Racer TNT with new tracks, a turbo mode, a new colour scheme and a brilliant multi-player mode for up to 8 players!

These games can be launched in the same way as a floppy disk game, you just have to remember to add the relevant drive before saving the configuration file.

As with the floppy disk option, snapshots are a great way to launch straight into the game, without waiting for tedious title screens and logos. Though the loading is significantly faster, some games can take a while to get to the “Press Fire” screen and this can be easily bypassed by using a snapshot. Remember not to change the hard-drive after you take the snapshot (particularly the game and directory, this can cause problems later on.

Running AGA games like Lionheart and CD32 versions of games like Zool is so much easier via WHDLoad and did not require the floppy disk swap method detailed above. Here are a few things I discovered while converting my existing games to WHDLoad versions:

- Using floppy disk images my standard emulated Amiga was an A500 because almost all the games I wanted were native to that format. However, it's difficult to setup the hard-drive and WHDLoad under those minimal conditions, so my new default setup became an A1200 (CPU 68020, 8Mb + 2Mb, More Compatible), on which almost all my Amiga games ran. Some games, however, require more exotic hardware. The CD32 version of Skidmarks, for example, needs a 68040 CPU to run 8 cars simultaneously and Alien Breed 3D is a slideshow without at least a 68040.
- Some games use function keys, these can be easily re-mapped to '1', '2', '5' and '6' (Start and Coin buttons on a standard arcade layout). e.g. Datastorm's multi-player settings and Barbarian's Player 1 / Player 2 start button.
- For two-player simultaneous play you'll have to configure port 1 with a joystick. I use Keyboard Layout C which I then re-map to my cabinet's player 2 settings. For the standard joystick in port 2 I use Keyboard Layout B (Cursor keys, Right CTRL and Alt = Fire) but I then re-map the CTRL key to be Left CTRL as per standard MAME key settings. Using Host / Input / Configuration #1 / Standard PS/2 Keyboard). WinUAE is one of the few emulators that distinguishes between the left and right CTRL keys.
- Snapshots need to be made after all configuration changes are completed, otherwise you'll have problems when the game goes to access the disk post the snapshot point. So, wait until everything is set up and configured and then take your .uss snapshot. (EDIT: Not entirely convinced about this, I have managed to get the settings to change using the existing snapshot file but as often I find they are over-written by the uss. It's not reliable.)

3. Use a program like WinUAELoader (from Headsoft) that plugs into a database of Amiga games called Gamebase to retrieve configs and supports WHDLoad.

If you have a large collection of Amiga games then WinUAE Loader, with its interface to configuration databases would be the tool of choice. I have only about 70+ games, so I'm happy to configure them by hand. You can find out more at http://www.headsoft.com.au/index.php?category=winuaeloader

Re-mapping controls

Version 0.8.23 also configured MAME controls (U,D,L,R & Left Ctrl) and Esc to quit but more recent versions of WinUAE allow you to customise these settings anyway. Very recent versions of WinUAE allow you to remap keys used to emulate a joystick from within the interface itself. Go to the Game ports section and use the Remap function. For those running older versions, here are the keyboard settings from the [name].uae file:

Simply paste the lines below into your [name].uae file between input.1.mouse and input.2.joystick.0

```
...
;input.1.mouse.7.disabled=0
input.1.keyboard.0.button.1=SPC_QUIT.0
input.1.keyboard.0.button.2=KEY_SPACE.0
```

```
input.1.keyboard.0.button.6=MOUSE1_UP.0
input.1.keyboard.0.button.7=MOUSE1_DOWN.0
input.1.keyboard.0.button.16=KEY_F5.0
input.1.keyboard.0.button.17=KEY_RETURN.0
input.1.keyboard.0.button.19=JOY1_UP.0
input.1.keyboard.0.button.21=KEY_F3.0
input.1.keyboard.0.button.29=JOY2_FIRE_BUTTON.0
input.1.keyboard.0.button.30=JOY1_FIRE_BUTTON.0
input.1.keyboard.0.button.31=JOY1_2ND_BUTTON.0
input.1.keyboard.0.button.32=JOY1_LEFT.0
input.1.keyboard.0.button.33=JOY1_DOWN.0
input.1.keyboard.0.button.34=JOY1_RIGHT.0
input.1.keyboard.0.button.42=KEY_F2.0
input.1.keyboard.0.button.44=KEY_F3.0
input.1.keyboard.0.button.45=KEY_F4.0
input.1.keyboard.0.button.56=JOY2_2ND_BUTTON.0
input.1.keyboard.0.button.57=KEY_F1.0
input.1.keyboard.0.button.200=JOY2_UP.0
input.1.keyboard.0.button.203=JOY2_LEFT.0
input.1.keyboard.0.button.205=JOY2_RIGHT.0
input.1.keyboard.0.button.208=JOY2_DOWN.0
;input.2.joystick.0.empty=true
...
```

Don't forget to specify

```
; common
use_gui=no
```

in the [name].uae file as well to stop your games launching into the WinUAE GUI every time.

Additionall, as mentioned above, some keys used on a realy Amiga keyboard may have to be re-mapped. The function keys are often used, as is the space bar. Use the Input function in WinUAE, select Configuration #1, Keyboard and find the key you want to use on the left (Input Source), click on it and then choose the key you want to emulate (or WinUAE function you want to perform) (Input Target) from the drop-down menu.

The only thing left to do on the Amiga is to come up with a seamless way to save and load additional states from the cabinet's controls. WinUAE can map keys to functions such as "Load Previous State Capture", "Quick save state", "Quick restore state", "Save state", "Restore state".

Configuring MAMEWah with WinUAE

I'm using a custom layout for MAMEWah (see above), with the flyer (box/cover) on the right and the snap 'on-screen'.

Use the configuration files as the 'roms'. That way you're pre-loading the Amiga settings as well as being able to name the rom anything you like but use the .uae config title as the display name in MAMEWah's list. As well as setting up the emulated Amiga environment, you should also insert the floppy disks. Thus you are best to save you config file after loading the game successfully.

```
### 03amiga.ini (mamewah v1.62) ###

emulator_title                          Amiga

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\WinUAE2200\Configurations
rom_extension                           uae
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
```

```
pre_emulator_app_commandlines
emulator_commandline                    [emurootpath]\[emuname]\WinUAE2200\winuae.exe
-config="[rompath]\[name].[romext]"{dosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines
```

To start from a saved state use the following command line:

```
winuae.exe -config="[rompath]\[name].[romext]" -cfgparam statefile="[rompath]\[name].uss"
```
e.g.
```
winuae.exe -config="configurations\wizball.uae" -cfgparam statefile="configurations\wizball.uss"
```

You can keep the uae and uss files in the same directory and with the same name which makes for easy MAMEWah loading:

```
emulator_commandline [emurootpath]\[emuname]\WinUAE1530\winuae.exe -config="[rompath]\[name].[romext]"
-cfgparam statefile="[rompath]\[name].uss"{dosbox}{safelaunch}
```

Amiga Extras

This listing of WinUAE command lines seems to be in demand so I'll post it here to save me searching for it later:

-f
To load a config-file, use: 'winuae.exe -f configfile.uae'
(currently WinUAE does not check config files in: '...\Configurations' so you have to type:
'winuae.exe -f Configurations\configfile.uae'

-s
To set/"override"/change the parameter of an specific option (inside a config file), use: 'winuae.exe -s option=parameter'.
For example: 'winuae.exe -s use_gui=no'.
The option will just be changed temporary that means the configfile itself will not be modified.

-config=
To load a config-file, use: 'winuae.exe -config= configfile.uae'

-cfgparam
To set/"override"/change the state of an specific option (inside a config file), use: 'winuae.exe -cfgparam option=parameter'.
For example: 'winuae.exe -cfgparam use_gui=no'.

Furthermore parameter(s) set with: "-cfgparam" is(are) different than '-s'. They stay in memory and "overrides" the option(s) of all loaded configurations, even if you try to load new config from GUI.
To disable this state just restart WinUAE.

-nomultidisplay
use only primary monitor

-scsilog
enable scsi logging

-norawinput
don't try to enable rawinput (Windows XP multimouse)

-forcerdtsc
always use RDTSC (CPU internal clock counting register)

-nordtsc
never use RDTSC, use "high-resolution performance counter" instead. (WinUAE normally selects best counter automatically)

-noaspifiltering
enable detection of all SCSI devices
(uaescsi.device normally only supports SCSI/IDE CDROMs)
->"How to add/enable zip drive to/in WinUAE?"
http://eab.abime.net/showthread.php?t=12039&highlight=noaspifiltering

-disableharddrivesafetycheck
if enabled WinUAE allows to use each harddrive which is recognized by Windows(C) (TM) even if there is allready something installed -
for example an operating system. If you already removed all files and partitions and WinUAE still does not detect your "empty" drive which you want to use then this parameter is more than helpful too. This switch makes it possible to use "xx in 1 cardreader" and attached drives/cards (e.g.: CF II Cardflash, Microdrive, Smartmedia etc...) directly.

-rdbdump
dump the "Rigid Disk Block" of all mounted drives to file(s) called rdb_dump_x.rdb.

-log

enable logging; it is basically the same like the log-option in misc-panel (WinUAE normally selects best counter automatically)

-help
(nothing happens)

-h
(nothing happens too)

-diskswapper=
This makes it possible to add disk image(s) to diskswapper while WinUAE starts. 'winuae.exe -diskswapper image1, image2,...'

Commodore 64 – WinVICE 2.0

Commodore 64 game dumps are plagued with 'cracktros'. Popular in the 90s, pirates would stamp their warez with tiny pieces of code, often spliced onto the boot-block of the game. Many of these pirate groups would later evolve into demo groups, very popular in Europe, but they left a mark on Commodore 64. Add a limited set of controls though, and the mark is more of a blemish. Requiring the use of arcane keys (F1-F9, Y/N, etc). The simplest way to solve this problem is by using snapshots. Most console emulators support them but on the C64 with its big loads and cracktros, they become essential.

I used WinVICE 1.19 which worked well for the majority of games but updated to WinVICE2.1, unfortunately I was unable to get rid of the emulator menu, even when running in full-screen. I dropped back to WinVICE 2.0 and everything works well.

Controls had to be set on target machine but graphics were able to be configured remotely. Joysticks work as they should. Joystick port 1 is P1 controls and port 2 is P2. Turn off Save settings on exit and use Closemul (1+5 / 5+1) to close emulator but leave Esc mapped to C64's Run Start/Stop.

```
### 04commodore64.ini (mamewah v1.62) ###

emulator_title                                          Commodore 64

### List Generation Settings ###
rom_path                                                [emurootpath]\[emuname]\games
rom_extension                                           vsf
dat_file
nms_file
catver_ini_file
list_generation_method                                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                                    [emurootpath]\[emuname]\WinVICE-2.0\closemul.exe
49 53 x64.exe -fullscreen "[rompath]\[name].[romext]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines
```

A feature of VICE is the ability to speed up emulation. Unfortunately the emulator's speed settings are not saved as part of the snapshot, so these have to be set via the command line. So far, the only game I've encountered where this is desired is the superlative Karateka which is dog-slow.

Use MAMEWah's individual game settings option to create a karateka.ini file in the config/game folder and set the speed setting (-speed x%). Additionally, Karateka seems especially sensitive to disk speed, so enabling True Drive Emulation (-truedrive) is worthwhile. This does slow down the disk access but if you snapshot the game at the gameplay start instead of the titles, you won't notice until much later.

```
### karateka.ini (mamewah v1.62) ###

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                        [emurootpath]\[emuname]\WinVICE-2.0\closemul.exe 49 53
x64.exe -speed 150% -truedrive -fullscreen "[rompath]\[name].[romext]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines
```

Super Nintendo – ZSNES v1.51

The emulator itself has been stable for a long time but it does require some tweaks to run on an arcade cabinet. Firstly, configuring the pads, you can find my keys above elsewhere in this document but here's the settings from my zsnesw.cfg (v1.40):

```
; Keyboard Scancodes/Joystick Mappings for Keyboard 1 & 2
; In order of Right, Left, Down, Up, Start, Select, B, Y, A, X, L, R
; Use the GUI to set these values

ScanKey1 = 205, 203, 208, 200, 2, 6, 56, 29, 44, 42, 45, 57
ScanKey2 = 34, 32, 33, 19, 3, 7, 31, 30, 23, 17, 37, 16
```

ZSNES v1.51 uses a separate file to store the input settings: zinput.cfg. Here are the relevant contents set up for a standard, six-button MAME cabinet. You'll need to work out the key values for yours or simply configure it through the menu using 'Set Keys'

```
;From v1.51
; Player 1 Input
; Input Device: 0 = Unplugged, 1 = KEYBOARD/GAMEPAD
pl1contrl=1
; Keys for Select, Start, Up, Down, Left, Right, X, A, L, Y, B, R
pl1selk=6
pl1startk=2
pl1upk=200
pl1downk=208
pl1leftk=203
pl1rightk=205
pl1Xk=56
pl1Ak=44
pl1Lk=57
pl1Yk=29
pl1Bk=42
pl1Rk=45
```

```
; Player 2
; Input Device: 0 = UNPLUGGED, 1 = Keyboard/Gamepad
pl2contrl=1
; Keys for Select, Start, Up, Down, Left, Right, X, A, L, Y, B, R
pl2selk=56
pl2startk=3
pl2upk=19
pl2downk=33
pl2leftk=32
pl2rightk=34
pl2Xk=31
pl2Ak=23
pl2Lk=16
pl2Yk=30
pl2Bk=17
pl2Rk=37
```

Don't forget to disable the GUI *after* you have configured all the options!

```
;From v1.4
; GUI Disable (1 = Disable GUI, 0 = Enable GUI)
GUIDisable = 1

;From v1.51
; Disable GUI (0 = NO, 1 = Yes)
guioff=1

; ESC to Game Menu (0 = No, 1 = YES)
```

```
; If yes, visiting the GUI will have the Game Menu automatically selected.
; It will also enable the main menu keyboard shortcuts.
esctomenu=0
```

Other than those settings, you are free to tweak to suit your system!

```
### 09supernintendo.ini (mamewah v1.62) ###

emulator_title                          Nintendo SNES

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           zip
dat_file
nms_file                                [emurootpath]\[emuname]\snes.nms
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                    [emurootpath]\[emuname]\zsnes\zsnesw.exe "[rompath]\[name].
[romext]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines
```

Nintendo 64 – Project64 v1.5SP1 (hacked)

A tricky system to emulate in terms of hardware and controls. You'll need some additional drivers for display and controls. It is one of the few emulators not to run with closemul and lacks any direct Quit options. Fortunately a hacked version exists that allows quit from the escape key and supports standard MAME controls out of the box. Though it is 1 version behind the public version and two versions behind the private beta, it seems to emulate fairly well. Some games, however, remain elusive.

Install Project64 v1.5, then the Service Pack 1. Then re-name the project64.exe as project64.exe.bak and copy across the hacked version.

- Video (graphics) plugin: Jabo's Direct3D8 1.6
- Audio (sound) plugin: Jabo's DirectSound 1.5
- Input (controller) plugin: Jabo's DirectInput7 1.5

If you get hold of glide3x.dll and drop it in the project64 dir, you can get access to Glide64 'Napalm' Public Release 1.0 which delivers some excellent improvements, though it might cause issues with MAMEWah and window focus.

In the Settings / Options tab, choose On loading a ROM go to full screen.

Controller Details:

The joystick (5) is mapped to U-R-L-D for both players.

The camera buttons (8) are not mapped, this causes problems for games requiring camera movement, fortunately these are rare.

N64 Controller Button	Diagram	Arcade Cabinet (P1)	Arcade Cabinet (P2)	Keys (P1)	Keys (P2)
Joystick (U/D/L/R)	5	P1 - U/D/L/R	P2 - U/D/L/R	Cursor U/D/L/R	r/f/d/g
Start	4	P1	P2	1	2
A	7	Player 1 - Button 1	Player 2 - Button 1	Ctrl	a
B	6	Player 1 - Button 2	Player 2 - Button 2	Left Alt	s
Z	Not displayed	Player 1 - Button 5	Player 2 - Button 5	z	i
Camera (c-buttons)	8	Not configured	Not configured	N/A	N/A
D-Pad	1				
Left Shoulder	2	Player 1 - Button 3	Player 2 - Button 3	Space	q
Right Shoulder	3	Player 1 - Button 6	Player 2 - Button 6	x	k

For MAMEWah specifically, use {dosbox} and {safelaunch} in the command line to stop Project64 from switching to the background.

```
### 10nintendo64.ini (mamewah v1.62) ###

emulator_title                          Nintendo 64
```

```
### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           zip
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                    [emurootpath]\[emuname]\project64_15sp1\project64.exe
[rompath]\[name].[romext]{dosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines
```

List of working (tested by me) N64 games:

(NB: Some games have to be in the .v64 format to be run properly. Not sure why, but they do. e.g. Goldeneye 007)

Project 64 v1.5SP1

- 1080 Snowboarding – perfect
- A Bug's Life - perfect
- Banjo Kazooie – some graphical corruption but looks good
- Banjo Tooie – some graphical corruption but looks good
- Beetle Adventure Racing – perfect (looks great, too!)
- Cruisin' World – perfect
- Destruction Derby 64 - perfect
- Diddy Kong Racing – perfect
- Donkey Kong 64 - some graphical corruption, some slowdown, needs camera controls
- Doom 64 – it's sooo dark... unplayable.
- Excitebike 64 - perfect
- FIFA 99 – perfect
- ISS 2000 – small glitch when match begins but otherwise, perfect
- Mario Kart 64 – perfect
- Mario Tennis – works but with glitches and slowdown
- Paper Mario – some very minor glitches in the menus but otherwise, perfect.
- PilotWings 64 – some in-game corruption (big black box below player model) but works
- Quake 64 – perfect but needs some work on the controls
- Quake 2 – works but very, very dark and controls are terrible.
- Rayman 2 – perfect
- Re-volt – works but a bit fiddly
- Road Rash 64 – perfect – but camera controls used for attacks
- Ridge Racer 64 - perfect
- Starfox 64 – works well – a bit dark
- Super Mario 64 – perfect
- Super Smash Bros – perfect
- Tomorrow Never Dies – perfect

- Top Gear Rally - perfect
- Wave Race 64 – perfect
- Wetrix – works but controls are unplayable – needs investigating.
- Wipeout 64 – perfect
- Worms 64 – works but problems with the controls make unplayable

Project 64 v1.6

PilotWings 64 – perfect – manual quit required (custom ini using 1.6)

Games that do not work:

Carmageddon 64 – game 'runs' but does not display environment or car.

Gauntlet Legends – occasional glitches precede slowdown and jitter making unplayable

Gameboy B&W, Colour & Advance – VisualBoyAdvance v1.72

use visualboyadvance.cfg rather than vba.ini

```
# Frame skip setting. Allowed values are from 0 to 5 only.
frameSkip=0
```

It was set to 2 but runs superbly at 0

Setting Bilinear Plus causes screen flicker. Most of the other modes either have minor - no effect or cause flicker. Stick with 9 - bilinear.

```
### 12gameboycolor.ini (mamewah v1.62) ###

emulator_title                          Gameboy Color

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           zip;gb;gbc
dat_file
nms_file                                [emuexepath]\[emuexename].nms
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines           [emurootpath]\cpv2\cpv2.exe -p=[emuname]
emulator_commandline                    [emurootpath]\[emuname]\vba\visualboyadvance.exe "[rompath]\
[name].[romext]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines                [emurootpath]\cpv2\cpv2.exe -p=[emuname];


### 13gameboyadvance.ini (mamewah v1.62) ###

emulator_title                          Gameboy Advance

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\goodroms
rom_extension                           zip
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines           [emurootpath]\cpv2\cpv2.exe -p=[emuname]
emulator_commandline                    [emurootpath]\12gameboycolor\vba\visualboyadvance.exe
"[rompath]\[name].[romext]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines                [emurootpath]\cpv2\cpv2.exe -p=[emuname];
```

Vectrex – MESS 0.98

Later versions of MESS adopt the same vector issues that plague later versions of MAME. Dull and lifeless vector lines, often almost invisible. A simple solution is to create a vectrex.ini in the mess\ini dir and add the following values to it: You can modify the values to achieve the best results on your monitor but these glow brightly on my arcade CRT.

```
### vectrex ###

hwstretch 0
cleanstretch none
brightness 1.3
gamma 1.5
beam 1.35
intensity 1.6
```

```
### 27vectrex.ini (mamewah v1.62) ###

emulator_title                                  vectrex

### List Generation Settings ###
rom_path                                        [emurootpath]\[emuname]\roms
rom_extension                                   bin
dat_file
nms_file                                        [emurootpath]\[emuname]\vectrex.nms
catver_ini_file
list_generation_method                          rom_folder

### Execution Settings ###
pre_emulator_app_commandlines                   [emurootpath]\cpv2\cpv2.exe -p=[emuname]
emulator_commandline                            [emurootpath]\mess098\mess.exe -nonu vectrex
-skip_gameinfo -cart "[rompath]\[name].[romext]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines                        [emurootpath]\cpv2\cpv2.exe -p=[emuname];
```

Intellivision – MESS 0.131

An excellent Intellivision emulator, which works fine under MAMEWah, is Nostalgia. It's easy to set up and runs at a very good speed. However, I wanted to add it to MESS – sometimes I'm my own worst enemy. I wanted to be able to configure the Intellivision ***per game*** to avoid a wide variety of problems emulating its 12 button pad, this turned out not to be a feature of MESS – ah well.

You'll need to have the intellivision bios files - exec.bin and grom.bin either in a zip file in the bios dir or as files in a "intv" subdirectory and the games need to be in a .rom or .int format. You'll need to configure the software directory for the Intellivision component of MESS to point to the roms (defaults to the mess\software dir). You can do this through the MESS GUI prior to locking down the command line for MAMEWah.

I had problems with MESS 0.128, but MESS 0.131 runs everything I need (except Vectrex – see Vectrex).

```
### 34intellivision.ini (mamewah v1.62) ###

emulator_title                          Intellivision

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           int
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines           [emurootpath]\cpv2\cpv2.exe -p=[emuname]
emulator_commandline                    [emurootpath]\mess0131\mess.exe intv -skip_gameinfo -nonu
-now -cart "[rompath]\[name].[romext]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines                [emurootpath]\cpv2\cpv2.exe -p=[emuname]
```

Sega Megadrive / Genesis – Fusion 3.5.1

This emulator is very compatible with MAMEWah and requires only a few modifications. Obviously full-screen is a must but this is set via the command line (see below). Additionally, Fusion's default mode is to display the frames per second counter at the bottom left of the screen. You can turn this off in the emu\fusion\fusion.ini by making FPSEnabled=0.

Setting FullScreen=1 doesn't seem to make much difference but it is there in fusion.ini

The pads are fully configurable through the GUI, but as usual my standard setup is configured and can be seen in fusion.ini

```
Player1Keys=200,208,203,205,29,56,57,2,44,45,46,41,0,0,0,0
Player1bKeys=0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
Player1cKeys=0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
Player1dKeys=0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
Player2Keys=19,33,32,34,30,31,16,3,17,23,37,25,0,0,0,0
Player2bKeys=0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
Player2cKeys=0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
Player2dKeys=0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
Player1Buttons=0,1,2,3,4,5,6,7,4,5,6,7,8,9,10,11
Player1bButtons=0,1,2,3,4,5,6,7,4,5,6,7,8,9,10,11
Player1cButtons=0,1,2,3,4,5,6,7,4,5,6,7,8,9,10,11
Player1dButtons=0,1,2,3,4,5,6,7,4,5,6,7,8,9,10,11
Player2Buttons=0,1,2,3,4,5,6,7,4,5,6,7,8,9,10,11
Player2bButtons=0,1,2,3,4,5,6,7,4,5,6,7,8,9,10,11
Player2cButtons=0,1,2,3,4,5,6,7,4,5,6,7,8,9,10,11
Player2dButtons=0,1,2,3,4,5,6,7,4,5,6,7,8,9,10,11

### 15segagenesis.ini (mamewah v1.62) ###

emulator_title                          Sega Megadrive

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           zip
dat_file
nms_file                                [emurootpath]\[emuname]\md.nms
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines           [emurootpath]\cpv2\cpv2.exe -p=[emuname]
emulator_commandline                    [emurootpath]\[emuname]\fusion\fusion.exe "[rompath]\[name].
[romext]" -gen -fullscreen{nodosbox}{nosafelaunch}
post_emulator_app_commandlines
general_app_commandlines                [emurootpath]\cpv2\cpv2.exe -p=[emuname];
```

Sega 32X – Fusion 3.51

Though you can run a separate emulator selection for this ill-fated add-on for Sega's 16-bit machine, you can simply list the few 32X versions alongside the other Megadrive games. Drop your roms in the Megadrive directory and configure some correspondingly named ini files for each game in the mamewah162b13\config\15segagenesis\game\ directory and Fusion can be launched with the -32x setting.

e.g. for Virtua_Racing_Deluxe.zip create virtua_racing_deluxe.ini

```
### virtua_racing_deluxe.ini (mamewah v1.62) ###

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                    [emurootpath]\[emuname]\fusion\fusion.exe "[rompath]\[name].
[romext]" -32x -fullscreen{nodosbox}{nosafelaunch}
post_emulator_app_commandlines
```

Sega Master System – Fusion 3.5.1

The majority of the configuration is discussed above. Only minor differences in control pad configuration set them apart.

```
### 16segasms.ini (mamewah v1.62) ###

emulator_title                          Sega Master System

### List Generation Settings ###
list_generation_method                  rom_folder
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           zip
dat_file
nms_file
catver_ini_file

### Execution Settings ###
pre_emulator_app_commandlines           [emurootpath]\cpv2\cpv2.exe -p=[emuname]
emulator_commandline                    [emurootpath]\15segagenesis\fusion\fusion.exe "[rompath]\
[name].[romext]" -sms -fullscreen{nodosbox}{nosafelaunch}
post_emulator_app_commandlines
general_app_commandlines                [emurootpath]\cpv2\cpv2.exe -p=[emuname];
```

Sega Game Gear – Fusion 3.51

See notes above but with even less differences. Fusion produces a nice bezel for the Game Gear though.

```
### 14segagamegear.ini (mamewah v1.62) ###

emulator_title                          Sega Game Gear

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           gg
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines           [emurootpath]\cpv2\cpv2.exe -p=[emuname]
emulator_commandline                    [emurootpath]\15segagenesis\fusion\fusion.exe "[rompath]\
[name].[romext]" -gg -fullscreen{nodosbox}{nosafelaunch}
post_emulator_app_commandlines
general_app_commandlines                [emurootpath]\cpv2\cpv2.exe -p=[emuname];
```

PC-Engine / Turbografx 16 – Mednafen 0.8.4

Mednafen emulates a range of machines - The Atari Lynx, GameBoy (Color), GameBoy Advance, NES, PC Engine(TurboGrafx 16), SuperGrafx, Neo Geo Pocket (Color), PC-FX, and WonderSwan (Color). I use it for the PC-Engine & the Atari Lynx. There are other PC-Engine emulators but MagicEngine is not freeware and I am reluctant to pay for an emulator I don't spend a lot of time with (I actually have a PC-Engine and PC Engine GT, though).

The mednafen.cfg is full of settings for all the above systems, so be careful you are editing the relevant one. All PC-Engine settings are preceded with “pce”. Nothing too complicated here:

```
;Full-screen horizontal resolution.
pce.xres 640
;Full-screen vertical resolution.
pce.yres 480
;The scaling factor for the X axis.
pce.xscale 1
;The scaling factor for the Y axis.
pce.yscale 1
;The scaling factor for the X axis in fullscreen mode.
pce.xscalefs 2
;The scaling factor for the Y axis in fullscreen mode.
pce.yscalefs 2
;Enable scanlines with specified transparency.
pce.scanlines 0
;Stretch to fill screen.
pce.stretch 0
;Enable bilinear interpolation.
pce.videoip 1
;Enable specified special video scaler.
pce.special none
;Enable specified OpenGL pixel shader.
pce.pixshader none
```

In order to use MAME keys to start, you'll need to disable the Save / Load State buttons which display an overlay whenever you press a number key (like '1' and '2' for Start game). Find the Save state commands in the config and change the ones you use to 0.

```
e.g.
;Save state 1 select
command.1 keyboard 0
;Save state 2 select
command.2 keyboard 0
. . . . .

;Save state 5 select
command.5 keyboard 0

;Save state 6 select
command.6 keyboard 0
```

Finally, map the Esc key to exit the emulator:

```
;Exit
command.exit keyboard 293~keyboard 27
```

Here are the control pad configs for Player 1 & 2 from the mednafen.cfg

```
;pce, Port 1, Gamepad: I
pce.input.port1.gamepad.i keyboard 308
```

```
;pce, Port 1, Gamepad: Rapid I
pce.input.port1.gamepad.rapid_i
;pce, Port 1, Gamepad: II
pce.input.port1.gamepad.ii keyboard 306
;pce, Port 1, Gamepad: Rapid II
pce.input.port1.gamepad.rapid_ii
;pce, Port 1, Gamepad: SELECT
pce.input.port1.gamepad.select keyboard 53
;pce, Port 1, Gamepad: RUN
pce.input.port1.gamepad.run keyboard 49
;pce, Port 1, Gamepad: UP â†‘
pce.input.port1.gamepad.up keyboard 273
;pce, Port 1, Gamepad: RIGHT â†’
pce.input.port1.gamepad.right keyboard 275
;pce, Port 1, Gamepad: DOWN â†“
pce.input.port1.gamepad.down keyboard 274
;pce, Port 1, Gamepad: LEFT â†
pce.input.port1.gamepad.left keyboard 276
;pce, Port 1, Gamepad: III
pce.input.port1.gamepad.iii keyboard 32
;pce, Port 1, Gamepad: IV
pce.input.port1.gamepad.iv keyboard 304
;pce, Port 1, Gamepad: V
pce.input.port1.gamepad.v keyboard 122
;pce, Port 1, Gamepad: VI
pce.input.port1.gamepad.vi keyboard 120
;pce, Port 1, Gamepad: 2/6 Mode Select
pce.input.port1.gamepad.mode_select keyboard 109
;pce, Port 1, Mouse: Left Button
pce.input.port1.mouse.left mouse 306
;pce, Port 1, Mouse: Right Button
pce.input.port1.mouse.right mouse 308
;pce, Port 2, Gamepad: I
pce.input.port2.gamepad.i
;pce, Port 2, Gamepad: Rapid I
pce.input.port2.gamepad.rapid_i
;pce, Port 2, Gamepad: II
pce.input.port2.gamepad.ii
;pce, Port 2, Gamepad: Rapid II
pce.input.port2.gamepad.rapid_ii
;pce, Port 2, Gamepad: SELECT
pce.input.port2.gamepad.select
;pce, Port 2, Gamepad: RUN
pce.input.port2.gamepad.run
;pce, Port 2, Gamepad: UP â†‘
pce.input.port2.gamepad.up
;pce, Port 2, Gamepad: RIGHT â†’
pce.input.port2.gamepad.right
;pce, Port 2, Gamepad: DOWN â†“
pce.input.port2.gamepad.down
;pce, Port 2, Gamepad: LEFT â†
pce.input.port2.gamepad.left
;pce, Port 2, Gamepad: III
pce.input.port2.gamepad.iii
;pce, Port 2, Gamepad: IV
pce.input.port2.gamepad.iv
;pce, Port 2, Gamepad: V
pce.input.port2.gamepad.v
;pce, Port 2, Gamepad: VI
pce.input.port2.gamepad.vi
;pce, Port 2, Gamepad: 2/6 Mode Select
pce.input.port2.gamepad.mode_select
;pce, Port 2, Mouse: Left Button
pce.input.port2.mouse.left mouse 0
;pce, Port 2, Mouse: Right Button
pce.input.port2.mouse.right mouse 2
```

```
### 19pce-mednafen.ini (mamewah v1.62) ###

emulator_title                          PC Engine

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           pce
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                    [emurootpath]\[emuname]\mednafen\mednafen.exe -fs 1
"[rompath]\[name].[romext]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines
```

LaserDisc Games – Daphne v0.101.24

For the majority, Dragon's Lair will be the game that this emulator is used for, though it does run all the LaserDisc games. Currently I run three games – Dragon's Lair, Space Ace and Cobra Command. Getting Daphne to work is tricky at best and next to impossible at worst.

You'll need a disc of the game: e.g. Dragon's Lair 25th Anniversary DVD.

Though you can run it from the disc, it's better if you dump the files using the Convvid2Daph.exe supplied with Daphne.

Essentially you'll need a bunch of audio files, a bunch of video files, the original roms from the arcade PCB and a framesfile to tie it all together. Sometimes the video and audio files are combined into two giant files but the principle is the same.

I use MAMEWah's rom_folder switch to generate my lists and I point it at the framefile directory. I then use an nms file to make sure the game names display correctly.

e.g.

```
Dragon's Lair|lair
Space Ace|ace
Cobra Command|cobra
```

Setup should be configured through the DaphneLoader front-end but be warned it has a mind of its own and can go off and download all the Laserdisc games without prompting, making for a very large ISP bill! So do what you have to do and never return to it.

I'm not sure why Daphne creates a framefile directory since as you can see from the command line below, Daphne reads the framefiles from the vldp_dl directory.

The arcade roms go in the roms directory and your ripped audio and video files go in the vldp_dl directory under a romname heading.

The -fullscreen option should be self-explanatory but -fastload skips the laserdisc test that cycles through a bunch of frames before the title screen. This does not work for all Laserdisc games but seems to work for Dragon's Lair and Space Ace, so it's all good.

e.g.

```
daphne\roms\ace.zip
daphne\vldp_dl\ace\

### 22daphne.ini (mamewah v1.62) ###

emulator_title                          Daphne

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\framefile
rom_extension                           txt
dat_file
nms_file                                [emurootpath]\[emuname]\daphne.nms
catver_ini_file
list_generation_method                  rom_folder
```

```
### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                    [emurootpath]\[emuname]\daphne.exe [name] vldp -framefile
vldp_dl\[name]\[name].[romext] -fullscreen -fastload{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines
```

Colecovision – MESS 0.131

A fairly conventional implementation of MESS, using the latest, stable build. However the Colecovision control pad is trick to fully simulate on an arcade machine. Thus it's pretty much pot-luck on the games. Many of them use the numeric keypad to select starting options. Fortunately 1 & 2 (mapped to P1 & P2) feature heavily.

The only saving grace is that MESS allows you to modify the console's controls on-the-fly via the tab menu and this can sometimes get you out of trouble.

```
### 26colecovision.ini (mamewah v1.62) ###

emulator_title                          Colecovision

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           rom
dat_file
nms_file                                [emurootpath]\[emuname]\coleco.nms
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines           [emurootpath]\cpv2\cpv2.exe -p=[emuname]
emulator_commandline                    [emurootpath]\mess0131\mess.exe -nonu coleco -skip_gameinfo
-cart "[rompath]\[name].[romext]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines                [emurootpath]\cpv2\cpv2.exe -p=[emuname];
```

Sony Playstation – ePSXe 1.7.0

Here's my directory structure:

- f:\mamewah162b13\emu\28PSX\epsxe\
- f:\mamewah162b13\emu\28PSX\roms\

```
### 28PSX.ini (mamewah v1.62) ###

emulator_title                          Playstation

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           img
dat_file
nms_file                                [emurootpath]\[emuname]
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                    [emurootpath]\[emuname]\epsxe\epsxe.exe -nogui -f -loadbin
"[rompath]\[name].[romext]"{dosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines
```

It works perfectly!

Be aware you will probably have to download a few libs:

- WNASPI32.DLL
- zlib123-dll (zip contains directories and files)

Copy both files to the emulator's root dir and expand zlib123-dll to its own directory.

Note: I want to get this emulator running with the mouse as a lightgun (for my desktop PC w/ mouse but the undocumented command line switch "-gun" doesn't seem to do anything except allow the G-Con to be selected.

To obtain my roms, I used a CD burning program called Alcohol 120% which has a special setting for Playstation games. Fire up Alcohol and insert your PSX disc. Select "Image Making Wizard" and select Datatype - Playstation. Rename your image name to something more legible than the default and change the image format to CloneCD image file (*.ccd). Press Start. There's a bunch of files produced using this method but you only need one for emulators - *.img.

Atari 2600 – MESS 0.131

I was using z26 to emulate the Atari 2600 but my obsession with running as many emulators as possible under MESS 'forced' me to convert it.

The Atari 2600 is a bit of an exception as the roms are not required for MESS to emulate it. Put the following config into the mamewah/config dir and MESS should run the game you point at it.

```
### 29atari2600.ini (mamewah v1.62) ###

emulator_title                          Atari 2600

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           bin
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines           [emurootpath]\cpv2\cpv2.exe -p=[emuname]
emulator_commandline                    [emurootpath]\mess0131\mess.exe a2600 -skip_gameinfo -cart
"[rompath]\[name].[romext]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines                [emurootpath]\cpv2\cpv2.exe -p=[emuname]
```

Atari 5200 – MESS 0.131

In general to get a format working with MESS:

You'll need to have the format's bios files either in a zip file in the MESS\bios dir or as files in a "a5200" subdirectory the roms can be wherever you wish since the command line points to them. You'll need to configure the software directory for the component of MESS to point to the roms (defaults to the mess\software dir). You can do this through the MESS GUI prior to locking down the command line for MAMEWah. Individual system game directories are set in the properties of the system and not in the main Options directory. That ROMS dir is meant for bioses.

Analog controls are a pain in the butt. It will take L-R-U-D as X Dec/Inc and Y-Dec/Inc but only one direction needs to be confirmed – Inc. Some games, though are built with analog controls in mind - Star Wars and Missile Command are both unplayable on a digital joystick. Defender plays well but Beamrider is a bit sloppy.

The new versions of MESS have a new user interface which is more persistent than the older versions. To persuade MESS to run full screen without menus use -nonu which reverts back to the original method of using tab to access the settings in-game rather than through menus and -now (no window mode)

```
### 30atari5200.ini (mamewah v1.62) ###

emulator_title                          Atari 5200

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           zip;bin;a52
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines           [emurootpath]\cpv2\cpv2.exe -p=[emuname]
emulator_commandline                    [emurootpath]\mess0131\mess.exe -nonu -now a5200
-skip_gameinfo -cart "[rompath]\[name].[romext]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines                [emurootpath]\cpv2\cpv2.exe -p=[emuname];
```

Atari 7800 – MESS 0.131

In general to get a format working with MESS:

You'll need to have the format's bios files either in a zip file in the MESS\bios dir or as files in a "a7800" subdirectory the roms can be wherever you wish since the command line points to them. You'll need to configure the software directory for the component of MESS to point to the roms (defaults to the mess\software dir). You can do this through the MESS GUI prior to locking down the command line for MAMEWah. Individual system game directories are set in the properties of the system and not in the main Options directory. That ROMS dir is meant for bioses.

No problems with the Atari 7800, follow the standard setup for MESS and use the following config for MAMEWah.

```
### 31atari7800.ini (mamewah v1.62) ###


emulator_title                          Atari 7800


### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           zip
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder


### Execution Settings ###
pre_emulator_app_commandlines           [emurootpath]\cpv2\cpv2.exe -p=[emuname]
emulator_commandline                    [emurootpath]\mess0131\mess.exe a7800 -nonu -now
-skip_gameinfo -cart "[rompath]\[name].[romext]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines                [emurootpath]\cpv2\cpv2.exe -p=[emuname]
```

Atari Lynx – Mednafen 0.8.4

Though it's quite possible to run the same instance of mednafen for all emulators you want it to support, it seems wiser to use a separate instance for both Atari Lynx and the PC-Engine. If I run more systems from Mednafen then I may reconsider but the mednafen footprint is very small.

Trying to run Atari Lynx games full-screen is guaranteed to give you a headache. Halve the res on the command line "-lynx.xres 320 -lynx.yres 240" and disable full-screen in mednafen.cfg

Here are the graphic settings from mednafen.cfg

```
;Full-screen horizontal resolution.
lynx.xres 320
;Full-screen vertical resolution.
lynx.yres 240
;The scaling factor for the X axis.
lynx.xscale 1
;The scaling factor for the Y axis.
lynx.yscale 1
;The scaling factor for the X axis in fullscreen mode.
lynx.xscalefs 1
;The scaling factor for the Y axis in fullscreen mode.
lynx.yscalefs 1
;Enable scanlines with specified transparency.
lynx.scanlines 0
;Stretch to fill screen.
lynx.stretch 0
```

Controls:

Standard MAME config: U, D, L, R, Ctrl, Alt. Option 1 & Option 2 are configured as 1 & 2.

```
;lynx, Built-In, Gamepad: A (outer)
lynx.input.builtin.gamepad.a keyboard 308
;lynx, Built-In, Gamepad: Rapid A (outer)
lynx.input.builtin.gamepad.rapid_a
;lynx, Built-In, Gamepad: B (inner)
lynx.input.builtin.gamepad.b keyboard 306
;lynx, Built-In, Gamepad: Rapid B (inner)
lynx.input.builtin.gamepad.rapid_b
;lynx, Built-In, Gamepad: Option 2 (lower)
lynx.input.builtin.gamepad.option_2 keyboard 50
;lynx, Built-In, Gamepad: Rapid Option 2 (lower)
lynx.input.builtin.gamepad.rapid_option_2
;lynx, Built-In, Gamepad: Option 1 (upper)
lynx.input.builtin.gamepad.option_1 keyboard 49
;lynx, Built-In, Gamepad: Rapid Option 1 (upper)
lynx.input.builtin.gamepad.rapid_option_1
;lynx, Built-In, Gamepad: LEFT â†
lynx.input.builtin.gamepad.left keyboard 276
;lynx, Built-In, Gamepad: RIGHT â†'
lynx.input.builtin.gamepad.right keyboard 275
;lynx, Built-In, Gamepad: UP â†‘
lynx.input.builtin.gamepad.up keyboard 273
;lynx, Built-In, Gamepad: DOWN â†“
lynx.input.builtin.gamepad.down keyboard 274
;lynx, Built-In, Gamepad: PAUSE
lynx.input.builtin.gamepad.pause keyboard 53


### 32lynx-mednafen.ini (mamewah v1.62) ###

emulator_title                          Atari Lynx
```

```
### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           lnx
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines           [emurootpath]\cpv2\cpv2.exe -p=[emuname]
emulator_commandline                    [emurootpath]\[emuname]\mednafen\mednafen.exe -fs 1
-lynx.special nn4x -lynx.xres 320 -lynx.yres 240 "[rompath]\[name].[romext]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines
```

NEO-GEO Pocket Color – NeoPop v. 0.71

If you've already emulated MAME and its near-perfect emulation of NEO-GEO games, then you probably don't need to emulate the Pocket. Sure, there are a few native gems but they looked a lot better on the small screen than they do on a typical cabinet. NG Pocket stand-outs such as King of Fighters, Fatal Fury, Samurai Shodown and Magical Drop are remarkable only because of their portability.

The NeoPop emulator natively switches between windowed and full-screen with Esc, so either use Closemul, grab the hacked version (NeoPop ver. 0.71) or get a wrapper. The A and B keys are easily re-mappable to standard MAME. The first time you run the emulator, you'll have to select full-screen from the menu but it should stick. Selecting “Always On Top” from Misc Options is probably a good idea as well.

```
### 23ngpocket.ini (mamewah v1.62) ###

emulator_title                          NEO-GEO Pocket

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           ngc
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines           [emurootpath]\cpv2\cpv2.exe -p=[emuname]
emulator_commandline                    [emurootpath]\[emuname]\NeoPop-Win32.exe "[rompath]\[name].
[romext]"{dosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines                [emurootpath]\cpv2\cpv2.exe -p=[emuname];
```

Wonderswan – Mednafen 0.8.4

Mednafen detects the games' different orientations automatically but the key remapping seems a bit daft, since I'm not rotating the arcade machine's controls, I understand the principle of the original handheld's control but it seems irrelevant. Currently vertical games use Player 2's directions and Player 1 Right for button 1. Still working on fixing this permanently.

```
### 24wonderswan.ini (mamewah v1.62) ###

emulator_title                          Wonderswan

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           zip;ws
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                    [emurootpath]\[emuname]\mednafen\mednafen.exe "[rompath]\
[name].[romext]"{dosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines
```

In order to use MAME keys to start, you'll need to disable the Save / Load State buttons which display an overlay whenever you press a number key (like '1' and '2' for Start game). Find the Save state commands in the config and change the ones you use to 0.

```
e.g.
;Save state 1 select
command.1 keyboard 0
;Save state 2 select
command.2 keyboard 0
. . . . .

;Save state 5 select
command.5 keyboard 0

;Save state 6 select
command.6 keyboard 0
```

Map the Esc key to exit the emulator:

```
;Exit
command.exit keyboard 293~keyboard 27
```

For the controls, a standard MAME config: U, D, L, R, Ctrl, Alt for horizontal aspect games (X settings below) and Player 2's inputs for vertical aspect (Y settings below) games. Start is configured as 1 for both.

```
;wswan, Built-In, Gamepad: UP â†‘, X Cursors
wswan.input.builtin.gamepad.up-x keyboard 273
;wswan, Built-In, Gamepad: RIGHT â†’, X Cursors
wswan.input.builtin.gamepad.right-x keyboard 275
;wswan, Built-In, Gamepad: DOWN â†“, X Cursors
wswan.input.builtin.gamepad.down-x keyboard 274
;wswan, Built-In, Gamepad: LEFT â†□, X Cursors
wswan.input.builtin.gamepad.left-x keyboard 276
;wswan, Built-In, Gamepad: UP â†‘, Y Cur: MUST NOT = X CURSORS
wswan.input.builtin.gamepad.up-y keyboard 114
```

```
;wswan, Built-In, Gamepad: RIGHT â†', Y Cur: MUST NOT = X CURSORS
wswan.input.builtin.gamepad.right-y keyboard 103
;wswan, Built-In, Gamepad: DOWN â†“, Y Cur: MUST NOT = X CURSORS
wswan.input.builtin.gamepad.down-y keyboard 102
;wswan, Built-In, Gamepad: LEFT â†□, Y Cur: MUST NOT = X CURSORS
wswan.input.builtin.gamepad.left-y keyboard 100
;wswan, Built-In, Gamepad: Start
wswan.input.builtin.gamepad.start keyboard 49
;wswan, Built-In, Gamepad: A
wswan.input.builtin.gamepad.a keyboard 308
;wswan, Built-In, Gamepad: Rapid A
wswan.input.builtin.gamepad.rapid_a
;wswan, Built-In, Gamepad: B
wswan.input.builtin.gamepad.b keyboard 306
;wswan, Built-In, Gamepad: Rapid B
wswan.input.builtin.gamepad.rapid_b
```

ZX Spectrum – ZXSpin 0.666

If you got into gaming with a ZX Spectrum like I did, you'll no doubt have a craving to setup the beloved Speccy on your arcade machine. The ZX Spectrum used a few joystick formats, Kempston being the most popular and mapping this function to the control panel is key (no pun intended).

Although almost all games could be controlled via the Spectrum keyboard, these keys are mapped exactly and cannot be re-mapped without considerable effort and workarounds. The most reliable way to play the games is to use the Kempston joystick option that the majority of arcade-style Spectrum games support.

ZXSpin 0.666 is a great emulator but is very GUI-driven making it problematic for cabs. The first thing to do is to select the “Start in Full Screen” option. Tools / Configuration / Display / Display Engine / Start in Full Screen. That removes the need to press F4 every time the emulator starts. To change from keyboard emulation to Kempston joystick emulation:

Tools / Configuration / Controllers / Keyboard / Keystick Emulates / Kempston joystick.

The big advantage of ZXSpin is that it uses the default MAME keys: Left, Right, Up, Down, Ctrl, so no remapping required.

However, ZXSpin always starts in keyboard emulation mode, requiring F7 to change to Kempston. Saving and loading the emulator configuration doesn't preserve this function. Additionally pressing the Esc key simply drops the emulator out of full-screen. Closemul could be used to 'wrap' ZXSpin but doesn't solve the F7 problem. Enter AutoHotKey.

Here's the AutoHotKey script:

```
#SingleInstance Force
Run, F:\mamewah162b13\emu\35zxspectrum\zxspin0.666\ZXSpin.exe "%1%"
WinWait, ahk_class TSPINMainWindow
IfWinNotActive, ahk_class TSPINMainWindow
WinActivate, ahk_class TSPINMainWindow
WinWaitActive, ahk_class TSPINMainWindow
Send, {F7}
ESC::
    Process, Close, ZXSpin.exe
    ExitAPP
return
```

A brief overview of the script's functions:

- Run ZXSpin passing the rom via the command line (%1%), put it in quotes in case of spaces in the file name.
- Wait for the application to load and take focus using the absolute name of the window (TSPINMainWindow).
- Send F7 to ZXSpin changing from keyboard to Kempston joystick
- If the escape key is pressed, close ZXSpin and then close the script.

Use snapshots of the games rather than the tape files so that options such as joystick and number of players can be pre-selected. Many Spectrum games use the number keys in their main menu, allowing the use of standard control panel keys such as 1, 2, 5 & 6 to be utilised. However other keys are used (such as “0”) and these may have to be re-mapped in the ahk script.

Here's the MAMEWah ini file with the pre_emulator and emulator command line.

```
### 35zxspectrum.ini (mamewah v1.62) ###
```

```
emulator_title                          Sinclair Spectrum

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]\roms
rom_extension                           sna
dat_file
nms_file                                [emurootpath]\[emuname]\spectrum.nms
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines
emulator_commandline                    [emurootpath]\[emuname]\zxspin0.666\ZXSpin-AHK.exe
"[rompath]\[name].[romext]"{nodosbox}{safelaunch}
post_emulator_app_commandlines
general_app_commandlines
```

PC Games

"Official" list for PC Games On Cab - http://forum.arcadecontrols.com/index.php?topic=88060.0

PC games are tricky beasts but if you're running Win XP then there are a few gems which work well on a cabinet. MAMEWah has a secret weapon to run PC games, a dedicated emulator command-line switch: pc (see below). Once again closemul.exe comes in useful to bypass the exit confirmations on quit.

Simple Steps

1. Install your games to the relevant directory on your PC. Test to see if they work from either command line or by double-clicking them. Make a simple batch-file to run the game:

```
doom.bat
closemul doom.exe
```

2. Make a shortcut to that batch file – a .lnk - and place it in your PC 'roms' directory. In my case this is mamewah\emu\21pcgames. Point your rom_path in your ini file at the directory and specify /lnk files as the rom_extension. You can rename the lnk files so that they display better when scanned by MAMEWah but you can also use MAMEWah's .nms feature to specify names:

```
pcgames.nms

Doom 2|doom
GL Tron|gltron
Hurrican|hurrican

### 21pcgames.ini (mamewah v1.62) ###

emulator_title                          PC Games

### List Generation Settings ###
rom_path                                [emurootpath]\[emuname]
rom_extension                           lnk
dat_file
nms_file                                [emurootpath]\[emuname]\pcgames.nms
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
pre_emulator_app_commandlines           [emurootpath]\cpv2\cpv2.exe -p=[emuname]
emulator_commandline                    pc
post_emulator_app_commandlines
general_app_commandlines                [emurootpath]\cpv2\cpv2.exe -p=[emuname];
```

By default MAMEWah will hide the mouse cursor but it can be enabled by using the 'cursor' switch:

```
emulator_commandline                    pc{cursor}
```

Doom 1 & 2

While unrelated to MAMEWah setups, running Doom on an arcade machine is well worth the effort. Doom Legacy seems to be most effective, providing the basic Doom command line options as well as enabling the use of split-screen, multi-player mode. It also works well with closemul.exe, skipping the problematic quit shenanigans (Press "Y" to confirm). Note: You'll still need the original doom 1 & 2 wad files.

Doom 2 Single-Player – doom.bat

```
closemul legacy.exe -warp 1
```

Doom 2 Multi-Player Split-Screen - doom-split.bat

```
closemul legacy.exe -warp 1 -splitscreen
```

Doom 2 Single-Player – Custom wad file – doom_claw3.bat

```
closemul legacy.exe -file claw3.wad -warp 2 -skill 3
```

Doom 2 Multi-Player Split-Screen – Custom wad file – doom_rng.bat

```
closemul legacy.exe -file rng.wad -warp 1 -splitscreen -deathmatch
```

The only difference between Doom 1 & 2's command lines are the map selection. Use “-map exmy” instead of “-warp x” to select the starting episode and mission.

There's a list of arcade cabinet compatible games here:

Remapping Important Keys

Native PC games often use PC keyboard specific commands such as Enter. This can be problematic on arcade control panels that, while they have an Enter equivalent, it is either inconvenient or too arcane for irregular users.

AutoHotKey is the answer. With it you can create simple or complex scripts to perform all sorts of behind the scenes magic. Remapping the Enter key to '1' on a control panel is easily achieved:

```
1::Enter
```

However, since running the autohotkey script and the game itself separately can be challenging, you can have autohotkey load the game first (as per your original batch-file):

```
Run, CT3.exe
1::Enter
```

You're also going to want to quit the game and close the script when you've finished:

```
ESC::
    Send !{F4}
    ExitAPP
return
```

This sends Alt-F4 to Windows, closing the application and the ExitAPP command closes the script, also dropping any key-mapping preventing it from interfering with other applications.

So, the final script looks like this:

Crazy_Taxi.ahk

```
Run, CT3.exe
1::Enter
ESC::
    Send !{F4}
    ExitAPP
return
```

Using autohotkey, I was also able to drop the need for Closemul, since almost all PC games have a hotkey for closing themselves (Alt+F4, Alt+Q, Alt+X, etc) and you can simply map the appropriate key to Esc.

DOSBox Games

A solution to running older DOS games is the excellent DOSBox. With increasing compatibility and a flexible command line, DOSBox is relatively simple to configure. It also has the added advantage of a built-in re-mapper.

To setup the basic DOS environment (drive mounts) and run the game, you have three choices:

1. Add command line switches using "-c" to the shortcut properties.

```
"C:\Program Files\D-Box\Dosbox\dosbox.exe" -c "mount c c:\users\jeremy\games" -c "mount d e:\
-t cdrom"
```

2. Add the commands to the autoexec.bat area of the default DOSBox config.
3. Create a dedicated config file (.conf) for each game and pass the path to it via the batch file.

Screamer Rally - Srally.bat

```
"C:\Program Files\D-Box\Dosbox\dosbox.exe" -conf
"f:\mamewah162b13\emu\21pcgames\dosgames\sr\screamerrally.conf"
```

For MAMEWah purposes, I find a combination of 2 and 3 is the best as it allows you to make shortcuts to simple batch files in line with other PC games but have some flexibility over the general DOS environment.

Here's the autoexec section of the DOSBox config to get Screamer Rally to run using the standard DOSBox setup.

screamerrally.conf

```
[autoexec]
# Lines in this section will be run at startup.

rem +---------------------------------------------------------------
rem ! Mount the virtual harddisk and the CD-drive.
rem +---------------------------------------------------------------

    mount C "f:\mamewah162b13\emu\21pcgames\dosgames"
    mount D d:\ -t cdrom

rem Run Screamer Rally
c:
cd \sr
start65h.exe
exit
```

Avoid running other batch files that do not also quit themselves or you could end up with a quit into a DOS session. Where possible, run the contents of the batch file directly. e.g. Need for Speed (DOS) has a `tfns.bat` that contains `tfns sb` for soundblaster. Thus the DOSBox configuration file: `nfs.conf` looks like:

```
[autoexec]
    mount C "f:\mamewah162b13\emu\21pcgames\dosgames"
    mount D d:\ -t cdrom
c:
cd \nfs
TNFS SB
exit
```

Re-mapping Keys

Pressing Ctrl-F1 during an emulated session brings up the keyboard re-mapper. Use the mouse to choose the target key, press 'Add' and then select the source key on the keyboard. If you wish to replace the original key (DOSBox will now respond to both the original and the re-mapped keys), then use 'Next' to find the original and 'Del' to delete it. This generates a mapper file (default mapper.txt in the current dir) that will be loaded if present.

Sega Saturn – SSF, Yabause, Satourne, Cassini - WIP

You might find it difficult to believe but the perfect emulation of the Sega Saturn remains elusive. Some games work but almost all have problems. I've been working on emulation of Sega's 32bit cult favourite without much success. Here's the results of my testing:

- **SSF** - Unfortunately, SSF has fairly high system requirements – basically a Pentium 4 or Athlon 64, or above. This is way above my Athlon XP 2800 that I have in my cabinet. Unhelpfully, and it took me some time to work this out, SSF simply crashes immediately after loading if you don't meet its draconian specifications.
- **Yabause** - A lot of incompatibilities with my favourite games (in particular, Sega Rally and Nights). Also, clicking on the Settings / Input menu to add a controller, crashes the program, in my book that is a drawback.
- **Satourne** - Very unreliable. CD Drive emulation appears to be pretty flaky. Even with original CDs, it's touch and go. I got Sonic R past the title screen only to get garbled graphics.
- **Cassini** - I'd tried this before but never managed to get anywhere. I re-downloaded it and tried again. I was surprised to find that it was far more effective and stable than all the others. However, it is far from perfect it loads Sega Rally but corrupts after pressing Start.

I looked into Cassini a bit and it is somewhat controversial. Sega's PC team created a Saturn emulator for commercial development called Giri Giri that inevitably found its way into the wild where it was disassembled and, making a few cosmetic changes, they changed the name to Cassini. Since then it has been shunned by the emulator community as it is a fairly clear case of IP theft. However, it does work. So, for individual use, especially if you own the games you're playing, it's fine.

Untested Emulator Configs

Atari Jaguar

```
### 05atarijaguar.ini (mamewah v1.61) ###

emulator_title                          Atari Jaguar

### List Generation Settings ###
rom_path                                d:\atarijaguar\roms
rom_extension                           jag
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
emulator_executable                     d:\atarijaguar\vj.exe
commandline_format                      "[rompath]\[name].[romext]"{nodosbox}{safelaunch}
alt_commandline_format_1 [name]
alt_commandline_format_2 [name]
game_specific_config_path

### Artwork Locations ###
artwork_1_image_path                    d:\atarijaguar\snap
artwork_2_image_path
artwork_3_image_path
artwork_4_image_path
artwork_5_image_path
artwork_6_image_path
artwork_7_image_path
artwork_8_image_path
artwork_9_image_path
artwork_10_image_path
movie_preview_path
movie_artwork_no 1

### Screen-Saver Settings ###
enable_music_in_screensaver             0
saver_type                              launch_scr
movie_path                              d:\mamewah\ssmovie
movie_fullscreen                        1
quit_delay                              30
wrapper_executable
wrapper_commandline_format              [name]
scr_file                                d:\mamewah\ms_pacman.scr

### External Application Settings ###
ipc_file_or_path
app_1_executable                        d:\cpvw\cpvw.exe
app_1_commandline_format                -b=d:\cpvw\images\atarijaguar.jpg
app_2_executable                        d:\cpvw\cpvw.exe
app_2_commandline_format                -b=d:\cpvw\images\mamewah.jpg
app_3_executable
app_3_commandline_format
auto_launch_apps

### Additional Settings ###
music_path                              d:\mamewah\music
lcd_display_file_path
lcd_fe_text

### Settings used by MAMEWAH ###
current_list                            0
```

Magnavox Odyssey 2

```
### 24odyssey2.ini (mamewah v1.61) ###

emulator_title                          Odyssey 2

### List Generation Settings ###
rom_path                                d:\odyssey2\roms
rom_extension                           bin
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
emulator_executable                     d:\odyssey2\o2em.exe
commandline_format                      "[rompath]\[name].[romext]"{nodosbox}{nosafelaunch}
alt_commandline_format_1                [name]
alt_commandline_format_2                [name]
game_specific_config_path

### Artwork Locations ###
artwork_1_image_path                    d:\odyssey2\snap
artwork_2_image_path
artwork_3_image_path
artwork_4_image_path
artwork_5_image_path
artwork_6_image_path
artwork_7_image_path
artwork_8_image_path
artwork_9_image_path
artwork_10_image_path
movie_preview_path
movie_artwork_no                        1

### Screen-Saver Settings ###
enable_music_in_screensaver             0
saver_type                              launch_scr
movie_path                              d:\mamewah\ssmovie
movie_fullscreen                        1
quit_delay                              30
wrapper_executable
wrapper_commandline_format              [name]
scr_file                                d:\mamewah\ms_pacman.scr

### External Application Settings ###
ipc_file_or_path
app_1_executable                        d:\cpvw\cpvw.exe
app_1_commandline_format                -b=d:\cpvw\images\neogeopocketcolor.jpg
app_2_executable                        d:\cpvw\cpvw.exe
app_2_commandline_format                -b=d:\cpvw\images\mamewah.jpg
app_3_executable
app_3_commandline_format
auto_launch_apps

### Additional Settings ###
music_path                              d:\mamewah\music
lcd_display_file_path
lcd_fe_text

### Settings used by MAMEWAH ###
current_list                            0
```

Arcadia

```
### 27arcadia.ini (mamewah v1.61) ###

emulator_title                          Arcadia

### List Generation Settings ###
rom_path                                d:\Mess\software\arcadia
rom_extension                           bin
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
emulator_executable                     d:\mess\mess.exe
commandline_format                      arcadia -cart "[rompath]\[name].[romext]"{nodosbox}
{nosafelaunch}
alt_commandline_format_1                [name]
alt_commandline_format_2                [name]
game_specific_config_path

### Artwork Locations ###
artwork_1_image_path                    d:\mess\snap\arcadia
artwork_2_image_path
artwork_3_image_path
artwork_4_image_path
artwork_5_image_path
artwork_6_image_path
artwork_7_image_path
artwork_8_image_path
artwork_9_image_path
artwork_10_image_path
movie_preview_path
movie_artwork_no                        1

### Screen-Saver Settings ###
enable_music_in_screensaver             0
saver_type                              launch_scr
movie_path                              d:\mamewah\ssmovie
movie_fullscreen                        1
quit_delay                              30
wrapper_executable
wrapper_commandline_format              [name]
scr_file                                d:\mamewah\ms_pacman.scr

### External Application Settings ###
ipc_file_or_path
app_1_executable                        d:\cpvw\cpvw.exe
app_1_commandline_format                -b=d:\cpvw\images\neogeopocketcolor.jpg
app_2_executable                        d:\cpvw\cpvw.exe
app_2_commandline_format                -b=d:\cpvw\images\mamewah.jpg
app_3_executable
app_3_commandline_format
auto_launch_apps

### Additional Settings ###
music_path                              d:\mamewah\music
lcd_display_file_path
lcd_fe_text

### Settings used by MAMEWAH ###
current_list                            0
```

Astrocade

```
### 30astrocade.ini (mamewah v1.61) ###

emulator_title                          Astrocade

### List Generation Settings ###
rom_path                                d:\mess\software\astrocde
rom_extension                           bin
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
emulator_executable                     d:\mess\mess.exe
commandline_format                      astrocde -cart "[rompath]\[name].[romext]"{nodosbox}
{nosafelaunch}
alt_commandline_format_1                [name]
alt_commandline_format_2                [name]
game_specific_config_path

### Artwork Locations ###
artwork_1_image_path                    d:\mess\snap\astrocde
artwork_2_image_path
artwork_3_image_path
artwork_4_image_path
artwork_5_image_path
artwork_6_image_path
artwork_7_image_path
artwork_8_image_path
artwork_9_image_path
artwork_10_image_path
movie_preview_path
movie_artwork_no                        1

### Screen-Saver Settings ###
enable_music_in_screensaver             0
saver_type                              launch_scr
movie_path                              d:\mamewah\ssmovie
movie_fullscreen                        1
quit_delay                              30
wrapper_executable
wrapper_commandline_format              [name]
scr_file                                d:\mamewah\ms_pacman.scr

### External Application Settings ###
ipc_file_or_path
app_1_executable                        d:\cpvw\cpvw.exe
app_1_commandline_format                -b=d:\cpvw\images\neogeopocketcolor.jpg
app_2_executable                        d:\cpvw\cpvw.exe
app_2_commandline_format                -b=d:\cpvw\images\mamewah.jpg
app_3_executable
app_3_commandline_format
auto_launch_apps

### Additional Settings ###
music_path                              d:\mamewah\music
lcd_display_file_path
lcd_fe_text

### Settings used by MAMEWAH ###
current_list                            0
```

Adventurevision

```
### 33adventurevision.ini (mamewah v1.61) ###

emulator_title                          Adventurevision

### List Generation Settings ###
rom_path                                d:\mess\software\advision
rom_extension                           bin
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
emulator_executable                     d:\mess\mess.exe
commandline_format                      advision -cart "[rompath]\[name].[romext]"{nodosbox}
{nosafelaunch}
alt_commandline_format_1                [name]
alt_commandline_format_2                [name]
game_specific_config_path

### Artwork Locations ###
artwork_1_image_path                    d:\mess\snap\advision
artwork_2_image_path
artwork_3_image_path
artwork_4_image_path
artwork_5_image_path
artwork_6_image_path
artwork_7_image_path
artwork_8_image_path
artwork_9_image_path
artwork_10_image_path
movie_preview_path
movie_artwork_no                        1

### Screen-Saver Settings ###
enable_music_in_screensaver             0
saver_type                              launch_scr
movie_path                              d:\mamewah\ssmovie
movie_fullscreen                        1
quit_delay                              30
wrapper_executable
wrapper_commandline_format              [name]
scr_file                                d:\mamewah\ms_pacman.scr

### External Application Settings ###
ipc_file_or_path
app_1_executable                        d:\cpvw\cpvw.exe
app_1_commandline_format                -b=d:\cpvw\images\neogeopocketcolor.jpg
app_2_executable                        d:\cpvw\cpvw.exe
app_2_commandline_format                -b=d:\cpvw\images\mamewah.jpg
app_3_executable
app_3_commandline_format
auto_launch_apps

### Additional Settings ###
music_path                              d:\mamewah\music
lcd_display_file_path
lcd_fe_text

### Settings used by MAMEWAH ###
current_list                            0
```

Fairchild Channel F

```
### 46channelf.ini (mamewah v1.61) ###

emulator_title                          Fairchild Channel F

### List Generation Settings ###
rom_path                                d:\mess\software\channelf
rom_extension                           bin
dat_file
nms_file
catver_ini_file
list_generation_method                  rom_folder

### Execution Settings ###
emulator_executable                     d:\mess\mess.exe
commandline_format                      channelf -cart "[rompath]\[name].[romext]"{nodosbox}
{nosafelaunch}
alt_commandline_format_1                [name]
alt_commandline_format_2                [name]
game_specific_config_path

### Artwork Locations ###
artwork_1_image_path                    d:\mess\snap\channelf
artwork_2_image_path
artwork_3_image_path
artwork_4_image_path
artwork_5_image_path
artwork_6_image_path
artwork_7_image_path
artwork_8_image_path
artwork_9_image_path
artwork_10_image_path
movie_preview_path
movie_artwork_no                        1

### Screen-Saver Settings ###
enable_music_in_screensaver             0
saver_type                              launch_scr
movie_path                              d:\mamewah\ssmovie
movie_fullscreen                        1
quit_delay                              30
wrapper_executable
wrapper_commandline_format              [name]
scr_file                                d:\mamewah\ms_pacman.scr

### External Application Settings ###
ipc_file_or_path
app_1_executable                        d:\cpvw\cpvw.exe
app_1_commandline_format                -b=d:\cpvw\images\neogeopocketcolor.jpg
app_2_executable                        d:\cpvw\cpvw.exe
app_2_commandline_format                -b=d:\cpvw\images\mamewah.jpg
app_3_executable
app_3_commandline_format
auto_launch_apps

### Additional Settings ###
music_path                              d:\mamewah\music
lcd_display_file_path
lcd_fe_text

### Settings used by MAMEWAH ###
current_list                            0
```

ArcadeVGA Graphics card installation instructions

- Ignore drivers for 9250
- Do full manual install of drivers for VGA Compatible card
- Restart
- Auto-detect 9250
- Install drivers automatically

To restart the process, uninstall either of the video cards and reboot - the cards should be detected again.

You should now be able to access 640 x 480 32bit mode.

Next install ATI Control Panel

Hardware Notes:

IArcade Monitor Settings

Device_video_pclock 5-90
Device_video_hclock 15.75
Device_video_vclock 48-63.2

Recommended by Easy MAMECab:

pclock 7-90
hclock 15.72
vclock 50-60

Example resolutions

NEO-GEO Games – 304x224 = 304x237 (Resize = no)

ARCADEOS INFO

This is taken from a working ArcadeOS setup that I ran for many years and still runs well at a friend's house.

DOS Build

Directory List of c:

DOS	Most DOS control files are kept here + some drivers
DOOM_SE	Doom Special Edition
ARCADEOS	The brains behind the Arcade interface
DRIVERS	Sound & graphics drivers
TEMP	Temporary storage
EMU	The Emulators directory (see below)
BACKUPS	The backups dir, archived for later burning
COMMAND.COM	DOS boot loader
AUTOEXEC.BAT	DOS startup file
LOGO.SYS	The loading picture (a 8bit jpg renamed .sys)
CONFIG.SYS	DOS startup drivers
M$.TMP	An emulator temp file

Directory List of c:\emu

VEC	Vectrex emulator – DVE 1.33 DOS Vectrex Emulator
ATARI	Atari 2600, Lynx & Jaguar emulators – Z26 1.35
AMIGA	Amiga emulator – Fellow & DOSUAE
COLEM	Colecovision emulator
GAMEBOY	Gameboy, Colour and Advance emulators
C64	Commodore 64 emulator - CCS64
MD	Megadrive emulators – Kgen98 & Genesis Plus
MAME	Arcade emulator – dmame .67 & advmame .62
INTEL	Intellivision emulator
NEC	NEC Turbografx 16 / PCEngine emulator
NES	Nintendo 8-bit emulator - Nesticle
PSX	Playstation emulator
SNES	Super Nintendo emulator - ZSNES
SPECTRUM	Sinclair Spectrum emulator
VBOY	Gameboy emulator - Virtualboy
MASTER	Sega Master System emulators – BRSMS, MGX & MEKA

ArcadeOS Console Control Files

KGEN98.app
ZSNES.app
DOOM.app
AMIGA.app
FCEU.app
GENPLUS.app
VGB.app
PCE.app
KIGB.app
MEKA.app

MAMEWah Appendices

MAMEWAH v1.6 FAQ

Initial Setup:

Q: MAMEWAH won't run properly, I keep getting [insert error here] when I try to run it. Whats up?

A: Make sure you have DirectX8 or above installed. Also, make sure you have installed the system files from the MAMEWAH downloads page, as instructed ;)

A2: Check the \mamewah\mamewah.log file and read the most recent error message.

Appearance:

Q: How do I get my layouts to show up?

A: First, read \mamewah\docs\layouts.txt. For a detailed how-to, see this thread (thanks JCrouse):

**********Broken Link: http://www.mameworld.info/ubbthreads/showthreaded.php?Cat=&Number=9717&page=0&view=collapsed&sb=5&o=&fpart=1&vc=1&new=1098083008**********

Q: Why don't my snapshots show up?

A: First, make sure you installed the system files (system.zip from the MAMEWAH downloads page). If this fails, try: Start > Run > regsvr32 paintx.dll . This should register the PaintX.dll component which is required to decode PNG files.

A2: Check your paths in the relevant \mamewah\cfg\emuname\emuname.ini file. Check that the order of images matches the artwork # you are displaying in the layout file.

A3: Make sure the snaps have the same name as the rom you are running.

Q: How do I get movie previews to show up in MAMEWAH?

A: Edit the relevant \mamewah\ini\emuname.ini file, and set 'movie_preview_path' accordingly, eg 'c:\mame\previews', and set 'movie_artwork_no' to the Artwork # you wish to display the previews in (eg 1). You may also want to tweak the '### Movie Options ###' in \mamewah\mamewah.ini - see \mamewah\docs\ini.txt for more details.

Q: Can I use animated GIF's in MAMEWAH?

A: Not currently :(

Emulator Setup:

Q: How do I set up [emulator name] with MAMEWAH?

A: A good place to start is to see if JCrouse has a pre-configured ini file available for said emulator: http://www.emuchrist.org/cpviewer/downloads.htm (thanks JCrouse). You will need to adjust these for your own emulator_executable location etc. If one does not exist, you will need to make your own - read \mamewah\docs\readme1st.txt and see this thread:

**********Broken Link: http://www.mameworld.info/ubbthreads/showthreaded.php?Cat=&Number=9717&page=0&view=collapsed&sb=5&o=&fpart=1&vc=1&new=1098083008**********

Q: How do I specify an order for my emulators to appear in the menu?

A: Use numbers to precede your emuname's, eg 1-mame.ini, 2-fusion.ini, 3-zsnes.ini etc. - they are displayed in alphanumerical order.

A2: The above suggestion is no longer necessary, though it does work. There is another file which allows you to set the order of the emulators.?????

Q: Can I use multiple rom paths?

A: Not as such, but for MAME if you use the 'verifysets_vs_listxml' (or _listinfo for old MAME versions) list_generation_method then you can - just make sure you have your rom paths setup accordingly in your (MAME) mame.ini file.

Q: Can I use multiple rom extensions?

A: As a rule, no - I recommend you use the same file type for all roms for a given emulator (eg .zip). However, setting 'rom_extension *' will allow all files to be listed, BUT if the emulator requires 'send_rom_extension 1' then the emulator/game will probably not launch correctly.

Q: How do I display/use CatVer category information in MAMEWAH?

A: Edit the relevant \mamewah\cfg\emuname\emuname.ini file, and set 'catver_ini_file' accordingly, eg 'c:\mame\catver.ini'. Then refresh the main list for the category information to be read.

Q: Launching [emulator name] or [PC game/app] results in MAMEWAH hanging. WTF?!

A: MAMEWAH is probably not hanging, the emulator/app is running in the background. In \mamewah\ini\emuname.ini, try adding the {dosbox} and/or {safelaunch} flags. NEVER use the {autodosbox} flag for any emulator other than MAME.

Q: When I run [game name] from MAMEWAH it doesn't work. What's up?

A: Could be a number of things...open \mamewah\mamewah.log, and see what it says. The commandline in mamewah.log is how MAMEWAH is attempting to launch the emulator. Run the emulator manually from a commandline to figure out how to launch it, then use MAMEWAH's Execution Settings to try and duplicate the commandline format.

Q: When I try to launch DOS program shortcuts with the PC App. support they don't work, why not?

A: DOS Program shortcuts have the .PIF extension - MAMEWAH can only use .LNK (Windows) shortcuts for it's PC App. support. To get around this, create a batch file to launch the .PIF file, and then create a shortcut to the batch file.

Controllers:

Q: Why won't my HotRod / X-Arcade / other control panel work with MAMEWAH?

A: The default ctrlr is setup for MAME defaults. The HotRod, X-Arcade and possibly other similar products uses the number pad keys (as opposed to 'normal' cursor keys) so you must make some changes in \mamewah\ctrlr\default.ini:

UP_1_GAME "DIK_NUMPAD8"
DOWN_1_GAME "DIK_NUMPAD2"
UP_1_LETTER "DIK_NUMPAD4"
DOWN_1_LETTER "DIK_NUMPAD6"

Q: How do I get my trackball to work in MAMEWAH?

**********A: Edit \mamewah\ctrlr\default.ini, and set 'mouse 1'. By default up/down on the trackball (or any mouse device) will scroll up/down the games list.**********

Q: My mouse / trackball / spinner doesn't work when I launch games from MAMEWAH...it used to work with MAME32 so what's up?

A: Settings such as enabling mouse input are MAME settings, which should be set in (MAME) mame.ini when using Windows Commandline MAME. See www.mameworld.net/easyemu for further help.

Q: How do I get my PC joystick device to work in MAMEWAH?

**********A: Edit \mamewah\ctrlr\default.ini, and set 'joystick 1'. By default up/down on joystick 1 will scroll up/down the games list. Note that joysticks are numbered in the order they appear in Control Panel > Game Controllers, so you may need to edit the joystick no. throughout the ctrlr file. Note that setting 'joystick 1' enables all joystick input, this can only be set to 1 or 0 (enable or disable).**********

Q: Why does my analog PC joystick device behave funny in MAMEWAH?

**********A: You can play around with the relevant _deadzone, _saturation & _sensitivity settings in the \mamewah\ctrlr\default.ini file, however I am not entirely happy with the analog joystick support (I will try to improve in future). In the meantime, I recommend you set _analog 0, and your joystick will be treated the same as a digital stick.**********

External Applications:

Q: How do I launch CPViewer / Johnny5 / any other controls.dat viewer from MAMEWAH?

A: Use the app_x_ options within \mamewah\cfg\emuname\emuname.ini. First point to the viewer by setting 'app_x_executable' suitably, eg 'c:\cpviewer\cpviewer.exe'. Then set the 'app_x_commandline_format' to '[name] -clone [cloneof]'. You can also set 'auto_launch_apps' to 1, 2 or 3 (depending which app. number you used as 'x') - this will auto-launch the viewer every time you launch a game, prior to launching the emulator. Finally you can use the shortcut set in **********\mamewah\ctrlr\default.ini********** as 'LAUNCH_APP_x' to launch the viewer any time you like.

Q: How can I use WinIPAC to program my IPAC from MAMEWAH?

A: First, edit mamewah.ini, and set 'winipac_file' accordingly, eg 'c:\winipac\winipac.exe'. Then set 'mamewah_ipc_file' to your standard IPAC file, which contains the key mappings for controlling MAMEWAH (eg 'c:\ipc\mamewah.ipc'). Now edit \mamewah\ini\emuname.ini, and set 'ipc_file_or_path' to your emulators relevant IPC file, eg 'c:\ipc\stella.ipc'. IF this 'emulator' is for PC apps, then you should point to a folder which contains the IPC files for each game, eg 'c:\ipc\pcgames'. MAMEWAH will use WinIPAC to reprogram the IPAC each time an emulator (or PC app) is launched, and reprogram it back to the MAMEWAH IPC mappings after quitting.

Misc:

Q: How do I setup my LCD screen to work with MAMEWAH?

A: In mamewah.ini, edit these settings:

lcd_com_port (place your serial (COM) port no. here)
lcd_settings (place settings here*)

* baud rate (110/300/600/1200/2400/9600/14400/19200/28800/38400/56000/128000/256000), parity ([e]ven,
[o]dd, [n]one, [m]ark, [s]pace), data bits (4-8), stop bits (1, 1.5, 2) - eg 9600,n,8,1 (this will vary depending on your screen etc.)

In your \mamewah\ini\emuname.ini (eg mame.ini):

lcd_display_file_path (place your lcd file path here*)

* This is the location of your LCD files; basically text files (with .lcd extension) for each game, containing text you wish to be displayed when the game is launched (& any additional characters required by the screen for carriage return etc.).

eg puckman.lcd:

PuckMan - 4-way joystick

Making the .lcd files is down to you...but check out Silver's 'MAME LCD Gen' program at http://www.silverfoxy.plus.com ;)

lcd_fe_text (text to display while in the FE, eg 'MAME - Multiple Arcade Machine Emulator' *)

* It is also recommended to add your LCD screens 'clear screen' characters as the first part of lcd_fe_text

When in the FE, the lcd_fe_text for the selected emulator will be displayed on the lcd screen. When you launch a game, the corresponding .lcd file will be read and the contents sent to the screen via com port lcd_com_port. Quitting the game will reset the lcd to lcd_fe_text.

Q: Can I use my parallel port interfaced LCD screen with MAMEWAH?
A: No, serial port only :(

Q: Why won't some of my MP3's play?
A: It seems that some MP3's may require the ID3 tag to be in v1 format, not v2 - try converting the tag (eg using Winamp).

Q: Can I setup MAMEWAH to run vertically?
A: Unfortunately MAMEWAH cannot rotate natively. BUT if you have a video card capable of hardware rotation (eg ATi Radeon), or if you have portrait software (eg PivotPro), then you can create a vertical layout - simply reverse the X and Y no. of pixels, eg 480x640.

Q: Can I use MAMEWAH with an ArcadeVGA card?
A: Yes, I would recommend a resolution of 368x240 or similar. Some users like to use 640x288 for maximum screen area without interlacing. Either create your own layouts using the Layout Designer or try my 'Classic' Layouts from the MAMEWAH downloads page.

Q: Can I merge all my emulators / games into one list?

A: At the moment, no :(

Q: I get a screen flicker after I quit a game...why?

A: Try setting MAMEWAH to the same resolution, refresh rate & colour depth as your desktop (or vice versa).

Windows 98 Specific:

Q: When I switch lists it sometimes takes ages to move to the next list, what's up?

A: This is down to the way MAMEWAH is written - it only stores one list in memory at a time. In Windows 98 clearing the current list causes a delay when switching lists - reduce the no. of games in the list(s) in question to speed it up.

MAMEWAH v1.62+ File System

Config INI Files (REQUIRED):

\mamewah\mamewah.ini - MAMEWAH's main config file - will be generated with default values the first time MAMEWAH is run.

\mamewah\config\emuname\emuname.ini - Emulator-specific config file. Create the 'emuname' folder only and the ini file will be generated when MAMEWAH is run.

\mamewah\config\emuname\emuname-0.ini - Main list-specific config file - will be created by MAMEWAH at the same time as the above.

\mamewah\config\emuname\emuname-1.ini etc. - Optional additional games list config file. Create empty file, and MAMEWAH will populate it when run.

Emulator 'Group' INI Files (OPTIONAL):

If you have many platforms configured you might want to group them, for example, all Nintendo systems together, all Sega systems together etc. You can do so by simply creating an ini file for each group required within \mamewah\config, and listing the 'emuname' of the systems you want in this group within. For example:

\mamewah\config\Sega.ini:

fusion
fusion-32x
fusion-cd
fusion-sms
fusion-gg

\mamewah\config\Nintendo.ini

fce
zsnes
pj64
vba

In MAMEWAH, the above files would enable the 'Group' menu, which would contain 'Sega' and 'Nintendo' (from the ini filenames). To simply enable or disable platforms, you can use just one file, eg 'emulators.ini'.

NOTE: the order you list the games in the file(s) are reflected when displayed in MAMEWAH.

Ctrlr (Input) CFG Files

(see ctrlr.txt for more details)

\config\emuname\emuname-x.cfg	(list specific)
\config\emuname\emuname.cfg	(emulator specific)
\config\mamewah.cfg	(global)

Layout Files

(all except logo & sounds should be in same folder as .lay file):

\config\emuname\themename\layout-x.lay	(emulator/theme/list specific)
\config\emuname\themename\layout.lay	(emulator/theme specific)
\config\emuname\layout-x.lay	(emulator/list specific)
\config\emuname\layout.lay	(emulator specific)
\config\layout.lay	(global)

Background / Logo Image Files:

Note: ??? is used below instead of file extension. BMP, GIF (non-animated!), JPG, JPEG, PCX and PNG files can be used.

\config\emuname\themename\main-x.???	(emulator/theme/list specific)
\config\emuname\themename\main.???	(emulator/theme specific)
\config\emuname\main-x.???	(emulator/list specific)
\config\emuname\main.???	(emulator specific)
\config\main.???	(global)

Note: 'main' can be substituted for 'options' or 'message' for other forms, or 'logo' for the logo image.

'No Artwork' Image Files:

\config\emuname\themename\art?-x.???	(emulator/theme/artwork #/list specific)
\config\emuname\themename\art-x.???	(emulator/theme/list specific)
\config\emuname\themename\art?.???	(emulator/theme/artwork # specific)
\config\emuname\themename\art.???	(emulator/theme specific)
\config\emuname\art?-x.???	(emulator/artwork #/list specific)

\config\emuname\art-x.???	(emulator/list specific)
\config\emuname\art?.???	(emulator/artwork # specific)
\config\emuname\art.???	(emulator specific)
\config\art?.???	(artwork # specific)
\config\art.???	(global)

The following files are checked for as well (in the same folder as the selected .lay file), in case you want to use just one layout, but emulator-specific 'no snap' images.

emuname-art?-x.???	(emulator/artwork #/list specific)
emuname-art-x.???	(emulator/list specific)
emuname-art?.???	(emulator/artwork # specific)
emuname-art.???	(emulator specific)

Sound Files:

\config\emuname\themename\soundfilename-x.wav	(emulator/theme/list specific)
\config\emuname\themename\soundfilename.wav	(emulator/theme specific)
\config\emuname\soundfilename-x.wav	(emulator/list specific)
\config\emuname\soundfilename.wav	(emulator specific)
\config\soundfilename.wav	(global)

Note: replace 'soundfilename' with any of the strings below:

intro	plays when Mamewah is launched
options	plays when options are opened/closed
optionselect	plays when an option is selected
gamelaunch	plays when game is launched
gameexit	plays when game is quit
applaunch	plays when application is launched
appexit	plays when application is quit
groupchange	plays when group is selected
emuchange	plays when platform is selected
listchange	plays when list is selected
navigate	plays when selected game is changed
exit	plays when Mamewah is quit
error	plays if error occurs

NOTE: 'x' should be replaced with the number of the games list you want to refer to, eg '-0' to refer to the main list.

MAMEWAH v1.62+ Ctrlr (Input) System

File Structure & Use

This is how the ctrlr system works: MAMEWAH will check for the following .cfg (ctrlr) files in the order below. If a given file does not exist, then MAMEWAH will move onto the next file in the hierarchy. If NONE of the files exist, MAMEWAH will exit as it will be uncontrollable!

Note that 'emuname' should be replaced with the emulator name, as used by MAMEWAH's ini config system. The '?' refers to the game list number, again, as used the \ini config system:

\mamewah\config\emuname\emuname-?.cfg	emulator & game list specific ctrlr file
\mamewah\config\emuname\emuname.cfg	emulator specific ctrlr file
\mamewah\config\mamewah.cfg	

Input Definitions

This is a list of key, mouse and joystick input codes which can be used in MAMEWAH's ctrlr ini config system. Note that keycodes are DirectInput standard codes, please consult ***Broken Link*** **http://msdn.microsoft.com/archive/default.asp?url=/archive/en-us/dx81_vb/directx_vb/Input/VB_Ref/Enums/const_dikeyflags.asp** for a more thorough explanation (some keycodes are not obvious which keys they are for!). SEE BELOW these codes for further settings...

'Main Keys:
DIK_0
DIK_1
DIK_2
DIK_3
DIK_4
DIK_5
DIK_6
DIK_7
DIK_8
DIK_9

DIK_A
DIK_B
DIK_C
DIK_D
DIK_E
DIK_F
DIK_G

DIK_H
DIK_I
DIK_J
DIK_K
DIK_L
DIK_M
DIK_N
DIK_O
DIK_P
DIK_Q
DIK_R
DIK_S
DIK_T
DIK_U
DIK_V
DIK_W
DIK_X
DIK_Y
DIK_Z

DIK_UP or DIK_UPARROW
DIK_DOWN or DIK_DOWNARROW
DIK_LEFT or DIK_LEFTARROW
DIK_RIGHT or DIK_RIGHTARROW

DIK_NUMPAD0
DIK_NUMPAD1
DIK_NUMPAD2
DIK_NUMPAD3
DIK_NUMPAD4
DIK_NUMPAD5
DIK_NUMPAD6
DIK_NUMPAD7
DIK_NUMPAD8
DIK_NUMPAD9
DIK_NUMLOCK
DIK_NUMPADSLASH or DIK_DIVIDE
DIK_NUMPADSTAR or DIK_MULTIPLY
DIK_NUMPADMINUS or DIK_SUBTRACT
DIK_NUMPADPLUS or DIK_ADD
DIK_NUMPADENTER
DIK_NUMPADPERIOD or DIK_DECIMAL
DIK_NUMPADCOMMA

DIK_NUMPADEQUALS

DIK_ESCAPE
DIK_F1
DIK_F2
DIK_F3
DIK_F4
DIK_F5
DIK_F6
DIK_F7
DIK_F8
DIK_F9
DIK_F10
DIK_F11
DIK_F12
DIK_F13
DIK_F14
DIK_F15

DIK_GRAVE
DIK_TAB
DIK_CAPSLOCK or DIK_CAPITOL
DIK_LSHIFT
DIK_BACKSLASH
DIK_MINUS
DIK_EQUALS
DIK_BACKSPACE or DIK_BACK
DIK_LBRACKET
DIK_RBRACKET
DIK_RETURN
DIK_SEMICOLON
DIK_APOSTROPHE
DIK_COMMA
DIK_PERIOD
DIK_SLASH
DIK_RSHIFT
DIK_LCONTROL
DIK_LWIN
DIK_LALT or DIK_LMENU
DIK_SPACE
DIK_RALT or DIK_RMENU
DIK_RWIN
DIK_APPS

DIK_RCONTROL

DIK_SYSRQ
DIK_SCROLL
DIK_PAUSE
DIK_INSERT
DIK_HOME
DIK_PGUP or DIK_PRIOR
DIK_DELETE
DIK_END
DIK_PGDN or DIK_NEXT

'Brazilian Keyboards:
DIK_ABNT_C1
DIK_ABNT_C2

'British/German Keyboards:
DIK_OEM_102

'Japanese Keyboards:
DIK_AT
DIK_AX
DIK_CIRCUMFLEX
DIK_COLON
DIK_CONVERT
DIK_KANA
DIK_KANJI
DIK_NOCONVERT
DIK_STOP
DIK_UNDERLINE
DIK_UNLABELED
DIK_YEN

'Multimedia/Web Keyboards:
DIK_CALCULATOR
DIK_MAIL
DIK_MEDIASELECT
DIK_MEDIASTOP
DIK_MUTE
DIK_MYCOMPUTER
DIK_NEXTTRACK
DIK_PLAYPAUSE
DIK_POWER

DIK_PREVTRACK
DIK_VOLUMEDOWN
DIK_VOLUMEUP
DIK_WAKE
DIK_WEBBACK
DIK_WEBFAVORITES
DIK_WEBFORWARD
DIK_WEBHOME
DIK_WEBREFRESH
DIK_WEBSEARCH
DIK_WEBSTOP

'Mouse Inputs:
MOUSE_LEFT
MOUSE_RIGHT
MOUSE_UP
MOUSE_DOWN
MOUSE_SCROLLUP
MOUSE_SCROLLDOWN
MOUSE_BUTTON0
MOUSE_BUTTON1
MOUSE_BUTTON2
MOUSE_BUTTON3

'Joystick Inputs (?=device no.):
JOY?_LEFT
JOY?_RIGHT
JOY?_UP
JOY?_DOWN
JOY?_IN
JOY?_OUT
JOY?_ROTATELEFT
JOY?_ROTATERIGHT
JOY?_ROTATEUP
JOY?_ROTATEDOWN
JOY?_ROTATEIN
JOY?_ROTATEOUT
JOY?_SLIDER0INC
JOY?_SLIDER0DEC
JOY?_SLIDER1INC
JOY?_SLIDER1DEC
JOY?_POV0-3_LEFT
JOY?_POV0-3_RIGHT

JOY?_POV0-3_UP
JOY?_POV0-3_DOWN
JOY?_BUTTON0-31

Other Settings:

Various other settings are available for use using the ctrlr ini files (see the bottom of the supplied mamewah.cfg). Here is a brief explanation:

keyboard - enable / disable keyboard
mouse - enable / disable mouse
joystick - enable / disable joysticks

digital_scroll_rate - scroll rate for games / options lists (also minimum scroll rate for similated analog, see below)

simulated_analog_max_rate - maximum scroll rate for 'simulated analog' (accelerated) scrolling (games list only)

mouse_x_sensitivity - mouse x-axis sensitivity
mouse_y_sensitivity - mouse y-axis sensitivity

(The below are joystick device no. [?] and [axis] specific)

joy?_axis_deadzone - % of travel before joystick is engaged
joy?_axis_saturation - % of travel before maximum joystick value is reached
joy?_axis_sensitivity - joystick sensitivity
joy?_axis_analog - specifies whether

MAMEWAH v1.62+ INI System

This is how the ini system works: MAMEWAH uses three main types of ini config files; mamewah.ini (main/global settings), emuname.ini (emulator-specific settings), and emuname-?.ini (list-specific settings, where ? is the list no.). In addition, gamename.ini files can also be used for game-specific configuration, if required - for example to use an alternative emulator to run a specific game.

Settings Overview:

mamewah.ini is auto-generated/updated when you run MAMEWAH, and resides in \mamewah. This file contains all general/global settings:

```
### mamewah.ini (mamewah v1.62) ###

### (Global) Screen-Saver Options ###
delay  5       (seconds)
slide_duration 3       (seconds)

### Audio Settings ###
enable_sounds  1       (0=no, 1=yes)
sound_volume   100     (0-100%)
music_path             (music folder, eg c:\music)
enable_music   1       (0=no, 1=yes)
music_volume   100     (0-100%)

### Movie Settings ###
intro_movie_file              (movie filename, eg c:\movies\intro.mpg)
exit_movie_file               (movie filename, eg c:\movies\exit.mpg)
keep_movie_preview_aspect     game_aspect    (no / video_aspect / game_aspect)
delay_before_movie_preview    2       (seconds)
music_movie_mix       mute_movies    (mute_movies / merge / pause_music)
movie_volume   100     (0-100%)

### Misc Settings ###
emulator_root_path            (path, eg c:\emulators - used with auto_setup_emulators 1)
auto_setup_emulators  0       (0=no, 1=yes)
theme          (theme name, optional)
wrap_list      0       (0=no, 1=yes)
remember_current_game 1       (0=no, 1=yes)
keep_image_aspect      1       (0=no, 1=yes)
refresh_images 0       (0=no, 1=yes)
delay_before_history_dat      2       (seconds)
safe_mode      0       (0=no, 1=yes)
show_cursor    0       (0=no, 1=yes)
keyboard_led_states   -,-,-   (x,x,x where x=: -=leave, 0=off, 1=on, eg 1,1,1)
lcd_com_port   1       (lcd display serial [com] port no.)
lcd_settings           (lcd settings - see below)
exit_action    choice  (choice / windows / run_app / reboot / shutdown)
maxlogsize     100000  (maximum mamewah.log size, in bytes)

### External Application Settings ###
startup_app_commandlines              (applications to be launched on MAMEWAH startup*)
exit_app_commandlines         (applications to be launched on MAMEWAH exit*)
exit_and_run_app_commandlines         (applications to be launched on MAMEWAH exit, when using
exit_action run_app*)

### Settings used by MAMEWAH ###
current_group          (current group - ignore, generated by MAMEWAH)
current_emulator       mame    (current emulator - ignore, generated by MAMEWAH)
locked 0       (menu lock state - ignore, generated by MAMEWAH)
```

lcd_settings should be as follows:

baud rate (110/300/600/1200/2400/9600/14400/19200/28800/38400/56000/128000/256000), parity ([e]ven, [o]dd, [n]one, [m]ark, [s]pace), data bits (4-8), stop bits (1, 1.5, 2)

eg: 9600,n,8,1

To generate emuname.ini, simply place a suitably named folder within the \mamewah\config folder (eg \mamewah\config\mame) - when run, MAMEWAH will automatically create \mamewah\config\emuname\emuname.ini. This file contains all emulator-specific settings:

```
### emuname.ini (mamewah v1.62) ###

emulator_title                                                  (title of your choice, eg
M.A.M.E.)

### List Generation Settings ###
rom_path                            auto                    (rom folder, eg c:\mame\roms)
rom_extension                       auto                    (file extension)
dat_file                            auto                    (dat filename, eg c:\mame\mame.dat)
nms_file                            auto                    (nms filename, eg c:\mame\mame.nms)
catver_ini_file                     auto                    (catver.ini filename, eg
c:\mame\catver.ini)
list_generation_method              auto                    (rom_folder / dat_file /
rom_folder_vs_dat_file / rom_folder_vs_listinfo / verifysets_vs_listinfo / listxml /
rom_folder_vs_listxml / verifysets_vs_listxml)

### Execution Settings ###
pre_emulator_app_commandlines                               (applications to be automatically launched
prior to emulator*)
emulator_commandline                auto                    (emulator*)
post_emulator_app_commandlines      (applications to be automatically launched after emulator*)
general_app_commandlines                                    (applications to be run using shortcuts or
menu selection*)

### Artwork Settings ###
artwork_image_paths                 auto                    (image file folders, eg
c:\mame\snap;c:\mame\titles)
movie_preview_path                  auto                    (movie preview folder, eg
c:\mame\previews)
movie_artwork_no                    1                       (1-10)
enable_fuzzy_search                 0                       (0=no, 1=yes)
history_dat_file                    auto                    (history.dat filename, eg
c:\mame\history.dat)
history_dat_artwork_no              2                       (1-10)

### Screen-Saver Settings ###
enable_music_in_screensaver         1                       (0=no, 1=yes)
select_random_game                  0                       (0=no, 1=yes)
saver_type                          slideshow               (blank_screen / slideshow / movie /
run_game / saver_commandline / power_saving / shutdown)
movie_path                                                  (movie folder, eg c:\movies - saver_type
movie only)
movie_fullscreen                    1                       (0=no, 1=yes, saver_type movie only)
quit_delay                          0                       (seconds - saver_type run_game only)
saver_commandline                                           (commandline for screensaver or
application, saver_type saver_commandline only*)

### Additional Settings ###
music_path                                                  (music folder, eg c:\music)
lcd_display_file_path                                       (lcd file folder, eg c:\lcd)
description_display                 [description]{scroll}   (customise what is to be displayed in
'Game Description' label - see 'Place-Holder and Flag Usage' below)
```

```
### Settings used by MAMEWAH ###
current_list                    0                   (current games list - ignore, generated by
MAMEWAH)
```

The required list-specific ini file (emuname-0.ini) will be automatically generated when MAMEWAH is run, with default settings as long as you have your emuname folder setup (see above). For additional, optional games lists, you should place suitably named ini files in the \mamewah\config\emuname folder - eg mame-1.ini, mame-2.ini etc.

```
### emuname-1.ini (mamewah v1.62) ###

list_title                                          (title of your choice, eg Joystick Games)

### Games List Settings ###
cycle_list                      1                   (0=no, 1=yes)
list_type                       normal              (normal / most_played / longest_played)
display_clone_info              0                   (0=no, 1=yes)
max_favorites                   0                   (0=no limit, >0=limit)

### Execution Settings ###
pre_emulator_app_commandlines                       (applications to be automatically launched
prior to emulator*)
emulator_commandline                                (emulator*)
post_emulator_app_commandlines                      (applications to be automatically launched
after emulator*)

### Settings used by MAMEWAH ###
current_game                    1                   (current game - ignore, generated by
MAMEWAH)
```

NOTE: emuname-0.ini does not have the list_type, display_clone_info or max_favorites settings, as these properties for the main list are fixed.

---

gamename.ini files work slightly differently. You should place an empty suitably named (ie romname.ini) text file within the \mamewah\config\emuname\game folder. When you run MAMEWAH, and *RUN THE GAME*, this file will be populated. Once this is done you can adjust the contents of this file as you wish, and copy it for use with other games:

```
### gamename.ini (mamewah v1.62) ###

### Execution Settings ###
pre_emulator_app_commandlines       (applications to be automatically launched prior to emulator*)
emulator_commandline                (emulator*)
post_emulator_app_commandlines      (applications to be automatically launched after emulator*)
```

Place-Holder and Flag Usage (* _commandline's

Any setting involving '_commandline's should be filled in very similarly to how you would run the emulator from a commandline. However, you need to replace key parts with place-holders, so MAMEWAH can use the commandline dynamically. For example, here is how you could run MAME from a commandline (assuming MAME resides in c:\mame):

```
c:\mame\mame.exe puckman
```

For use in MAMEWAH, this should be entered as:

```
c:\mame\mame.exe [name]
```

Another example for Fusion:

```
c:\fusion\fusion.exe "c:\fusion\roms\sonic the hedgehog.zip" -fullscreen
```

In MAMEWAH, the emulator_commandline would be:

```
c:\fusion\fusion.exe "[rompath]\[name].[romext]" -fullscreen
```

Note that while you might not always specify the full path to your emulator from a commandline, this is required in MAMEWAH.

The following list shows the place-holders that can be used:

System Related:

[emurootpath]	- path set in emulator_root_path (mamewah.ini)
[emuexepath]	- deduced from emulator_commandline
[emuexename]	- filename excluding path & extension, deduced from emulator_commandline
[emuname]	- current emulator name (as per by emuname.ini name)
[rompath]	- path set in rom_path (emuname.ini)
[romext]	- extension set in rom_extension (emuname.ini)

Game Related (available info dependent on list_generation_status):

[description]	- full game name
[name]	- romname
[year]	- year made
[manufacturer]	- manufacturer
[cloneof]	- parent romname
[romof]	- bios/parent romname
[screen]	- screen type
[orientation]	- screen orientation
[input]	- input type
[status]	- driver status

[color]	- color status
[sound]	- sound status
[category]	- game category/genre

Note that if '-clone [cloneof]' is present in the commandline_format, and the selected game is not a clone, then '-clone [cloneof]' will be ignored.

In order to alter the manner in which the emulator is launched, the following flags can also be used:

{8.3string}	- can be used to convert 'string' to a short (8.3) filename (note that quotes if applicable must be used outside of the {}'s)
{dosbox}	- displays any dos window used while launching emulator/app
{nodosbox}	- hides any dos window used while launching emulator/app
{autodosbox}	- automatically displays/hides any dos window while launching emulator/app (this should be used for M.A.M.E. only!)
{safelaunch}	- 'safe launches' the emulator/app, use this if the emulator/app is not launching properly from MAMEWAH
{nosafelaunch}	- launches the emulator/app in a preferred manner to {nosafelaunch}, but does not work with all emulators/apps
{wait}	- tells MAMEWAH not to continue execution until the emulator/app is quit
{nowait}	- tells MAMEWAH to continue execution while the emulator/app is launched (ie app will run at the same time)
{autoquit}	- terminates any app launched using the pre_emulator_app_commandlines option, straight after the emulator has quit (must be used in conjunction with {nowait}!)
{noautoquit}	- leaves any app launched using the pre_emulator_app_commandlines option, running indefinitely (must be used in conjunction with {nowait}!)
{quitafter?}	- terminates any emulator/app after ? seconds (must be used in conjunction with {wait}!)
{normal}	- launches the emulator/app using a normal sized window
{min}	- launches the emulator/app in minimised state (where possible)
{max}	- launches the emulator/app in maximised state (where possible)
{music}	- allows music playback to continue while emulator/app is running
{nomusic}	- pauses music playback while the emulator/app is running
{cursor}	- makes the default cursor visible while the emulator/app is running
{nocursor}	- hides the cursor while the emulator/app is running
{cursor filename}	- makes the cursor specified by 'filename' visible while the emulator/app is running

{noscroll}	- used to prevent scrolling info in on-screen labels (only used in 'Game Description' currently).

{scroll}	- used to scroll info in on-screen labels (only used in 'Game Description' currently).

Note:	If no 'dosbox' flag is set then '{dosbox}' is assumed
	If no 'safelaunch' flag is set then '{safelaunch}' is assumed
	If no 'wait' flag is set then {wait} is assumed
	If no 'autoquit' flag is set then {noautoquit} is assumed
	If no 'windowstate' flag is used then {normal} is assumed
	If no 'music' flag is set then '{nomusic}' is assumed
	If no 'cursor' flag is set then '{nocursor}' is assumed
	If no 'scroll' flag is set then '{noscroll}' is assumed

Flags in {curly brackets} are not used in the actual commandline sent to the emulator.

MAMEWAH Layout Designer

v1.67 (12/06/09)

Bugs Fixed:
Ensured background images are picked up, as in Mamewah (ie main.xxx, options.xxx, message.xxx in .lay path).

Improvements:
Added Background > Fade Speed option.

V1.62 (07/03/08)

Bugs Fixed:
Top/bottom centre selected object handles were not properly centred (fixed).

Improvements:
Enabled text properties for artwork objects, for future use with history.dat etc.,
Added ability to set opacity for Options & Message forms.

v0.962 (09/10/03)

Improvements:
Added Color Depth & Refresh Rate options.

Bugs found but NOT FIXED:
Alignment checks displayed are sometimes incorrect.

To Do:
Improve interface: shift keys etc.,
Change color of object borders if the same as the background color,
Display 'main.jpg' etc. as background images if they exist.

v0.953b (17/07/03)

Bugs Fixed:
Objects may have been displayed incorrectly if background image file did not exist (fixed).

Improvements:
Alterations to keep in line with MAMEWAH's new layout structures.

Bugs found but NOT FIXED:
Alignment checks displayed are sometimes incorrect.

v0.951b (11/06/03)

Bugs Fixed:

Minimizing program caused crash (fixed),

Altering background size while 'scrolled' down/right caused screen boundary to be displayed in incorrect position (fixed),

Altering background size while 'scrolled' down/right caused background image to be displayed in incorrect position (fixed),

Adding background image while 'scrolled' down/right caused background image to be displayed in incorrect position (fixed).

Improvements:

'Classic 640x288.LAY' corrected (black background).

Bugs found but NOT FIXED:

Alignment checks displayed are sometimes incorrect.

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